# Subsistence Use of Birds in the Northwest Arctic Region, Alaska

Technical Paper No. 260

by Susan Georgette

Alaska Department of Fish and Game
Division of Subsistence
Juneau, Alaska

July 2000

The Alaska Department of Fish and Game administers all programs and activities free from discrimination on the bases of race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The department administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972.

If you believe you have been discriminated against in any program, activity, or facility, or if you desire further information please write to ADF&G, P.O. Box 25526, Juneau, AK 99802-5526; U.S. Fish and Wildlife Service, 4040 N. Fairfield Drive, Suite 300, Arlington, VA 22203 or O.E.O., U.S. Department of the Interior, Washington DC 20240.

For information on alternative formats for this and other department publications, please contact the department ADA Coordinator at (voice) 907-465-4120, (TDD) 907-465-3646, or (FAX) 907-465-2440.

# ABSTRACT

This report summarizes information on subsistence harvests and uses of birds and eggs in the Northwest Arctic region of Alaska, based on surveys of households and interviews with bird hunters in 11 communities. The geographic area covered by this project corresponds to the Northwest Arctic Borough, which includes the coastal regions of Kotzebue Sound, the Selawik, Noatak, and Kobuk river drainages, and the arctic coast as far north as Kivalina. The report presents information on species harvested, timing of harvests, and numbers of birds and eggs taken at the community and regional levels. Descriptive information on local knowledge of birds from interviews with hunters is summarized for selected species. The report presents the first comprehensive description of subsistence bird patterns for communities in the Northwest Arctic region. The U.S. Fish and Wildlife Service funded the project.

An estimated 33,160 birds were harvested annually by households in the 11 Northwest Arctic region communities. In terms of numbers, ducks accounted for the largest percentage of the harvest (39.9 percent), followed by upland game birds (29.6 percent) and geese (29.4 percent). Sandhill cranes, tundra swans, loons, seabirds, and snowy owls each represented less than one percent of the region's bird harvest. The most common species of migratory birds harvested in the region were Canada geese, white-fronted geese, pintails, mallards, wigeons, and black scoters. By weight, geese accounted for most of the region's bird harvest (50.1 percent), followed by ducks (31.9 percent), upland game birds (14.3 percent), and tundra swans (2.3 percent). An estimated 14,136 eggs were harvested annually by households in the region. Seabird eggs accounted for the largest percentage of the harvest (86.5 percent), followed by goose eggs (7.1 percent) and duck eggs (5.4 percent). Murre and gull eggs were the principal species of eggs gathered.

Spring was the primary harvest season for migratory birds in the Northwest Arctic region with 67.6 percent of the harvest occurring in this season. About 24.3 percent of the harvest took place in fall and 6.9 percent in summer. The communities in the region exhibited variation in harvest seasons for migratory birds. Some harvested almost solely in the spring, one almost solely in the summer, and others fairly equally in both spring and fall.

An estimated total of 1,015 households in the Northwest Arctic region hunted birds during the survey year, representing 63.3 percent of all households in the region. About 1,581 persons in the region hunted birds, or about 1 out of 4 residents. Because subsistence foods were widely shared, more households used birds than harvested them. An estimated 78.5 percent of households in the Northwest Arctic region used birds for food during the survey year.

TABLE OF CONTENTS

List of Tables ..... iv
List of Figures ..... v
Acknowledgments ..... vi
Introduction ..... 1
Methodology ..... 2
Project 1: Kiana, Selawik, and Shungnak (1994-95) ..... 3
Project 2: Buckland, Kiana, Kivalina, Kobuk, and Noorvik (1997) ..... 4
Project 3: Ambler, Deering, Kotzebue, Noatak, and Selawik (1998-99) ..... 5
Subsistence Bird Harvests in the Northwest Arctic Region ..... 5
Bird Harvests by Season ..... 7
Subsistence Egg Harvests in the Northwest Arctic Region ..... 8
Participation in Bird Hunting ..... 9
Bird and Egg Harvests by Species ..... 10
Local Knowledge of Birds and Eggs ..... 11
White-fronted Geese ..... 11
Canada Geese ..... 11
Snow Geese ..... 12
Emperor Geese ..... 13
Brant ..... 14
Tundra Swan ..... 14
Sandhill Crane ..... 15
Eiders ..... 16
Other Ducks ..... 17
Loons ..... 18
Murres and Puffins ..... 19
Ptarmigan and Grouse ..... 20
Eggs ..... 20
Community Reports ..... 22
References Cited ..... 23
Tables and Figures ..... 25
Appendix 1 ..... 63
Sample Survey Instrument ..... 65
Sample Page from Color Bird Identification Guide ..... 67
Key Respondent Interview Guide ..... 69
Appendix 2: Community Reports ..... 71
Ambler 1998 ..... 73
Buckland 1997 ..... 81
Deering 1998 ..... 97
Kiana 1994 ..... 113

Kiana 1997 ..... 117
Kivalina 1997 ..... 125
Kobuk 1997 ..... 137
Kotzebue 1998 ..... 145
Noatak 1998 ..... 161
Noorvik 1997 ..... 177
Selawik 1994 ..... 189
Selawik 1998 ..... 193
Shungnak 1994 ..... 211

# LIST OF TABLES


Table 1. Communities and Households Surveyed, Northwest Arctic Region ..... 27

Table 2. Bird Harvests by Community and Study Year, Northwest Arctic Region ..... 28

Table 3. Bird Harvests by Species, Northwest Arctic Region ..... 31

Table 4. Bird Harvests in Pounds by Community, Northwest Arctic Region ..... 35

Table 5. Per Capita Bird Harvests, Northwest Arctic Region ..... 36

Table 6. Bird Harvests Per Household, Northwest Arctic Region ..... 37

Table 7. Bird Harvests Per Household in Pounds, Northwest Arctic Region ..... 38

Table 8. Bird Harvests by Species in Multiple Years, Kiana and Selawik ..... 39

Table 9. Bird Harvests by Season by Species, Northwest Arctic Region ..... 45

Table 10. Migratory Bird Harvests by Season by Community, Northwest Arctic Region ..... 47

Table 11. Egg Harvests by Community, Northwest Arctic Region ..... 49

Table 12. Egg Harvests by Species, Northwest Arctic Region ..... 51

Table 13. Egg Harvests Per Household, Northwest Arctic Region ..... 53

Table 14. Per Capita Egg Harvests, Northwest Arctic Region ..... 54

Table 15. Estimated Number of Persons Hunting Birds During the Study Year, Northwest Arctic Region ..... 55

Table 16. Households That Used, Hunted, Harvested, Gave, or Received Birds During Survey Year, Northwest Arctic Region ..... 56

Table 17. Percent of Households Harvesting Migratory Birds by Season, Northwest Arctic Region ..... 57

Table 18. Bird Harvests by Species by Community, Northwest Arctic Region ..... 58

Table 19. Egg Harvests by Species by Community, Northwest Arctic Region ..... 60

# LIST OF FIGURES

Fig. 1. Subsistence Bird Harvests, Northwest Arctic Region ..... 29

Fig. 2. Composition of Bird Harvests by Number, Northwest Arctic Region ..... 30

Fig. 3. Composition of Bird Harvests by Weight, Northwest Arctic Region ..... 30

Fig. 4. Composition of Migratory Bird Harvests by Number, Northwest Arctic Region ..... 34

Fig. 5. Composition of Migratory Bird Harvests by Weight, Northwest Arctic Region ..... 34

Fig. 6. Migratory Bird Harvests by Season, Northwest Arctic Region ..... 41

Fig. 7. Geese Harvests by Season, Northwest Arctic Region ..... 41

Fig. 8. Duck Harvests by Season, Northwest Arctic Region ..... 41

Fig. 9. Crane Harvests by Season, Northwest Arctic Region ..... 42

Fig. 10. Swan Harvests by Season, Northwest Arctic Region ..... 42

Fig. 11. Seabird and Loon Harvests by Season, Northwest Arctic Region ..... 42

Fig. 12. Upland Game Bird and Owl Harvests by Season, Northwest Arctic Region ..... 42

Fig. 13. Migratory Bird Harvests by Season by Community, Northwest Arctic Region ..... 43

Fig. 14. Subsistence Egg Harvests, Northwest Arctic Region ..... 50

Fig. 15. Composition of Egg Harvests, Northwest Arctic Region ..... 50

## ACKNOWLEDGMENTS

This study was truly a cooperative effort with Maniilaq Association, an Alaska Native non-profit organization in the Northwest Arctic region. Maniilaq staff Enoch Shiedt and Art Ivanoff participated at varying times in the fieldwork, sharing their guidance, insight, and good humor. In addition, they assisted in numerous project details and data reviews. Chester Ballot of Maniilaq Association provided unflagging support for the project. The support of the tribal councils in the 11 communities in the Northwest Arctic region was equally critical to the project's success.

Heartfelt thanks are owed to the many elders and hunters who welcomed us into their homes and shared their knowledge about birds and to the several hundred households who volunteered information about their subsistence bird harvests. We are indebted to the locally hired research assistants who carried out their survey work with care and diligence:

Christina Cleveland, Ambler
Muriel Ross, Buckland
Brenda Moto, Deering
Elmer Jackson, Kiana
Ted Smith, Kiana
Nora Swan, Kivalina
Ethel Wood, Sr., Kobuk
Betty Nelson, Kotzebue
Nate Shiedt, Kotzebue
Hilda Arey, Noatak
Lulu Good, Noorvik
Vernita Ballot, Selawik
Tracy Sampson, Selawik
Wynona Jones, Shungnak

The project was initiated by Cynthia Wentworth of the U.S. Fish and Wildlife Service, who provided vision, financial support, and an unfailing confidence in our abilities. Division of Subsistence staff in the Alaska Department of Fish and Game also contributed to the project in important ways. Dave Andersen and Amy Paige conducted the earliest round of bird surveys and interviews. The Subsistence Data Program staff, including Charles Utermohle, Cheryl Scott, Louis Brown, Gretchen Jennings, and Jessie Mallery, entered and analyzed the data, responding good-naturedly to our questions and suggestions. Robert Wolfe, Elizabeth Andrews, and Polly Wheeler offered perceptive advice and review at various points along the way. To all, we are grateful.

# INTRODUCTION

This report summarizes information on subsistence harvests and uses of birds and eggs in the Northwest Arctic region of Alaska, based on surveys of households and interviews with bird hunters in 11 communities. The geographic area covered by this project corresponds to the Northwest Arctic Borough, which includes the coastal regions of Kotzebue Sound, the Selawik, Noatak, and Kobuk river drainages, and the arctic coast as far north as Kivalina. This report presents information on species harvested, timing of harvests, and numbers of birds and eggs taken at the community and regional levels. Descriptive information on local knowledge of birds from interviews with hunters is presented for selected species. Comparable harvest information for the adjacent Norton Sound and Bering Strait region is available in Paige, Scott, Andersen, Georgette, and Wolfe (1996).

Migratory birds are important to the culture, life, and economy of the Northwest Arctic region. The Iñupiat of northwest Alaska hunt geese, ducks, and other birds each year as part of their annual cycle of subsistence activities. These are long-standing traditions stretching back generations. Little information has been collected in recent years quantifying the number of birds and eggs harvested by species and describing local ecological knowledge of birds. Existing sources of information on subsistence uses of birds include Anderson, Anderson, Bane, Nelson, and Towarak (1998) on the upper Kobuk River in the mid-1970s, Uhl and Uhl (1977) on the Cape Krusenstern area, Uhl and Uhl (1979) and Foote and Williamson (1966) on Noatak, and Burch (1985) and Saario and Kessel (1966) on Kivalina. Subsistence bird harvests in the Northwest Arctic region were estimated in the early 1970s by Patterson (1974) and in the early 1980s by Minn (1982, 1983). Information on the subsistence harvest of brant, emperor geese, and eiders throughout Alaska in the late 1980s and early 1990s is available in Wolfe and Paige (1995). This current project was an effort to provide a more complete picture of subsistence bird uses in the Northwest Arctic region in the 1990s.

From 1994-99, the Division of Subsistence, Alaska Department of Fish and Game worked with the regional non-profit Alaska Native association and community tribal councils to document the subsistence harvest of migratory birds in Kotzebue Sound. This was part of a larger effort—initiated and funded by the U.S. Fish and Wildlife Service—to document subsistence harvests of migratory birds throughout northern and western Alaska. The impetus for this research was a developing agreement between the United States and Canada to amend the Migratory Bird Treaty of 1916 to allow a legal spring subsistence hunt for waterfowl in rural Alaska. Information on subsistence uses of migratory birds was needed in the effort to amend the

treaty. The amended treaty was ratified in October 1997. The next step—implementation of regulations consistent with customary and traditional uses—also required subsistence use information. Data on bird harvests were also valuable for assessing the contribution of the subsistence harvest to the total annual waterfowl take, helping make continental management more accurate.

Of additional interest to the U.S. Fish and Wildlife Service (USFWS) in this research was the subsistence uses of the following bird species in Alaska: emperor geese, brant, and eider (common, king, spectacled, and Steller's). At the time, the USFWS was concerned about declining populations of emperor geese and brant, two species included in the Yukon Delta Goose Management Plan, and needed subsistence information for management planning, population modeling, and population recovery programs. Subsistence information was also needed for spectacled and Steller's eiders, whose apparent population declines led the USFWS to designate them as threatened in 1993 (spectacled) and in 1997 (Steller's). Common and king eider showed no apparent population declines. Information on eider ecology in Alaska and on reasons for the population changes was incomplete. The knowledge of Native peoples about eiders and other birds provided an important contribution to the scientific record.

This project also provided an opportunity for local residents in the Northwest Arctic region to participate in collecting and recording subsistence use information. The project demonstrated a model of cooperative research between Native organizations and state and federal agencies that could be used again in the future.

## METHODOLOGY

Information on the subsistence take of birds was collected using household surveys in all 11 communities in the Northwest Arctic Borough. In 1998 these communities ranged in population size from 102 in Kobuk to 2,964 in Kotzebue (Alaska Department of Labor 1999). Surveys were conducted during three separate projects between 1994 and 1998. All communities were surveyed at least once since 1996, except Shungnak which was surveyed in 1994. Two communities, Kiana and Selawik, were surveyed twice, first in 1994 and again in 1996 or 1997 to update the data. Table 1 lists the surveyed communities, the year(s) in which the survey(s) took place, and the number of households surveyed. Each of the three survey projects is described in greater detail below.

Including each community's most recent survey year, 529 of 1,596 households in the region, or 33.1 percent of all households, were surveyed about their subsistence harvest of birds. With

the exception of Kotzebue, the percentage of households surveyed in each community ranged from 39.2 percent in Noatak to 100 percent in Kobuk (Table 1). Depending on the size of the community, the survey goal was either a census or a randomly-drawn 50 percent sample. In small communities (60 households or less), attempts were made to interview all households. In communities with more than 60 households, a randomly-drawn 50 percent sample of households was interviewed. In Kotzebue, a stratified sample was used with 12.8 percent of households surveyed. The surveys were all conducted by local residents hired by the local tribal council or Maniilaq Association, an Alaska Native regional non-profit organization based in Kotzebue.

In addition to the surveys, key respondent interviews were conducted by Division of Subsistence staff with several bird hunters in each community. These interviews provided descriptive information on local knowledge of the population status, biology, ecology, and hunting of birds. Overall, 36 individuals were interviewed as key respondents in the 11 study communities. Notes from these interviews were typed, keyworded, and organized into a computer searchable database.

In all cases, tribal councils approved the project prior to research being conducted. Participation was voluntary and confidentiality was assured. Funding for the project was provided by the U.S. Fish and Wildlife Service.

Both Maniilaq and Division of Subsistence staff reviewed completed surveys, then forwarded them to Division staff in Anchorage for data entry and analysis. Preliminary data results were reviewed by Maniilaq. The Division of Subsistence prepared community reports summarizing the survey and interview information. These were distributed to the study communities, Maniilaq Association, and resource agencies. The harvest data were also included in the Division's Community Profile Database.

## Project 1: Kiana, Selawik, and Shungnak (1994-95)

The first round of bird surveys in the Northwest Arctic region was conducted in Kiana, Selawik, and Shungnak between November 1994 and February 1995. Maniilaq Association, community tribal councils, and the Division of Subsistence of the Alaska Department of Fish and Game worked cooperatively on this project. The survey focused specifically on subsistence harvest and use of birds and eggs. Hunters (or other heads of household) were asked to recall their household's bird and egg harvests by species during the 12-month period November 1993 through October 1994. Harvests of each bird species were recorded by season (spring, summer, fall, and winter). A color guide to birds was used to help identify species, allowing for greater

precision in harvest reports. In some communities, a list of local names for birds and descriptions of distinguishing characteristics of bird species were used as other identification aids. The survey also asked about whether birds and eggs were used and whether they were shared between households. The survey instrument and a sample page from the bird guide (in black and white) appear in Appendix 1.

Shungnak fell into the small community category while Kiana and Selawik qualified as large communities. Table 1 summarizes the sampled households by community.

In addition to the surveys, Division of Subsistence staff conducted key respondent interviews with three to four bird hunters in each community who were identified with the assistance of local researchers. Division staff used an interview guide in conducting these interviews (Appendix 1). Overall, ten individuals were interviewed as key respondents in the three study communities.

Project 2: Buckland, Kiana, Kivalina, Kobuk, and Noorvik (1997)

A migratory bird harvest project similar to the one conducted in 1994-95 was initiated again in 1997. This project was a cooperative endeavor between Maniilaq Association and the Division of Subsistence, Alaska Department of Fish and Game. The purpose of the project was to survey five additional communities in the region. The project originally included Ambler as a study community, but the tribal council there chose not to participate in the project at that time. Kiana was subsequently selected as an alternative study community to provide an additional year of survey data.

Staff from Division of Subsistence and Maniilaq Association traveled to each of the communities in November and December 1997 to provide orientation and training for the local research assistants hired by Maniilaq. The survey instrument and methodology used in this project were the same as those described above for the 1994-95 project in Kiana, Selawik, and Shungnak. The survey pertained to the 12-month period November 1996 through October 1997. All the communities except Kobuk were large enough (more than 60 households) to warrant a randomly-drawn 50 percent sample of households. Kobuk's small size made it possible to interview 100 percent of the households. Table 1 summarizes the sampled households by community.

To supplement the survey data, Division of Subsistence staff also interviewed two to four experienced bird hunters in each community except Kiana. A total of 13 individuals were interviewed as key respondents in the four villages. In Kiana, key respondent interviews took place with three bird hunters in 1994 during the first round of bird surveys.

Project 3: Ambler, Deering, Kotzebue, Noatak, and Selawik (1998-99)

The most recent migratory bird harvest project in the Northwest Arctic region took place during the winter of 1998-99. Like the previous year's project, this was a cooperative effort between Maniilaq Association and the Division of Subsistence, Alaska Department of Fish and Game. The study communities for this project included Ambler, Deering, Kotzebue, Noatak, and Selawik. These communities had either not been previously surveyed or had not been surveyed for several years and needed to be updated. The methodology and survey instrument used in this project were the same as in the preceding year.

Local residents in each of the study communities were hired by Maniilaq to conduct the surveys, which took place between November 1998 and March 1999. The survey covered the 12-month period November 1997 through October 1998. Local researchers attempted to interview all households in Deering and a randomly-drawn 50 percent sample of households in the larger communities of Noatak, Ambler, and Selawik. In Kotzebue, a stratified sample was used in which active bird hunting households were surveyed at a higher rate than the rest of the community. The Kotzebue data were then expanded by stratum, with expansion factors varying by stratum depending on the sampling rate. Kotzebue's estimated community harvest was the sum of the expanded samples. Table 1 summarizes the sampled households by community.

A total of 13 individuals were interviewed as key respondents in the five communities. In Selawik, three additional key respondent interviews took place in 1994 during the first round of bird surveys.

## SUBSISTENCE BIRD HARVESTS IN THE NORTHWEST ARCTIC REGION

Estimates of annual subsistence harvests of birds for the 11 communities in the Northwest Arctic region are presented in Table 2 and regional totals are depicted in Figure 1. Households in these communities reported harvesting a total of 33,160 birds. Three bird groups—ducks, geese, and upland game birds—accounted for 98.9 percent of the region's bird harvest (Fig. 2). Ducks were harvested in the largest number (13,235 birds), accounting for 39.9 percent of the total bird harvest. An estimated 9,804 upland game birds, primarily ptarmigan, were taken, representing 29.6 percent of the bird harvest. Geese closely followed these figures with a harvest of 9,756 birds, or 29.4 percent of the total bird harvest. The species contributing the most to the harvest by number were willow ptarmigan (28.0 percent), Canada goose (17.5 percent), mallard (10.6 percent), northern pintail (9.3 percent), and white-fronted goose (8.7 percent). All other species

contributed less than four percent each to the total harvest (Table 3). Although the community surveys were not all conducted in the same year, the total harvest number probably provides a reasonable estimate of the annual subsistence bird harvest in the Northwest Arctic region in the 1990s.

Birds other than ducks, geese, and upland game birds were harvested in small numbers, including cranes (72 birds), swans (141 birds), seabirds and loons (145 birds), and owls (6 birds) (Table 2). Each of these accounted for less than one percent of the total bird harvest in the region. No households reported harvesting shorebirds during the survey years.

By weight, geese accounted for about one-half of the bird harvest in the Northwest Arctic region and ducks comprised almost one-third (Fig. 3). Because of their small size, upland game birds accounted for only 14.3 percent of the harvest by weight compared to 29.6 percent of the harvest by number. An estimated total of 68,087 pounds of birds were harvested in the region (Table 4). The species contributing the most by weight to the harvest was Canada goose (27.6 percent), followed by white-fronted goose (17.9 percent), willow ptarmigan (13.2 percent), mallard (10.1 percent), and northern pintail (7.1 percent) (Table 3). All other species contributed less than three percent each to the total harvest by weight.

Of the migratory birds, ducks represented 56.7 percent of the region's harvest and geese represented 41.8 percent (Fig. 4). By weight, however, geese accounted for 58.3 percent of the region's migratory bird harvest and ducks accounted for 37.2 percent (Fig. 5). Swans represented 0.6 percent of the harvest by number, and 2.7 percent of the harvest by weight.

In terms of numbers, the largest migratory bird harvests were in Kotzebue (8,048 birds) and Noorvik (4,052 birds) (Table 2). Together these two communities accounted for about one-half of the migratory bird harvest in the region. Other communities reporting harvests of more than 1,000 migratory birds were Selawik (2,723 birds), Buckland (1,853 birds), Ambler (1,822 birds), and Shungnak (1,750 birds).

Kotzebue's large bird harvest was primarily a function of its size. This is indicated by the fact that Kotzebue had one of the lowest per capita migratory bird harvests in the region—2.42 birds per person (Table 5). The largest per capita migratory bird harvests in the region were in the Kobuk River communities of Shungnak (7.07 birds per person), Kobuk (6.96 birds per person), Noorvik (6.54 birds per person) and Ambler (5.52 birds per person). Other communities reported migratory bird harvests between 1.06 and 4.89 birds per person. Migratory bird harvests per household ranged from a low of 5.45 birds in Kivalina to a high of 33.49 birds in Noorvik (Table 6). Household harvests of migratory birds by weight ranged from 15.73 pounds per household in Kivalina to 77.48 pounds per household in Kobuk (Table 7). Overall, an average of

14.63 migratory birds weighing 36.54 pounds were harvested by households in the Northwest Arctic region.

Two years of bird harvest data are available for Kiana and Selawik. These are summarized by resource category in Table 2 and by species in Table 8. In Kiana, harvests in both years were similar. In Selawik, the 1997 harvest was more than twice the 1993 harvest with ducks and ptarmigan accounting for most of the increase. Whether this reflects favorable environmental conditions, a greater abundance of birds, or statistical variation is not known. For ease of presentation, most tables and figures in this report present data only from the most recent survey year (1996 or 1997) in these communities.

## BIRD HARVESTS BY SEASON

Spring was the primary harvest season for migratory birds in the Northwest Arctic region. About two-thirds of the region's migratory bird harvest took place in spring, defined in the survey as March, April, and May (Fig. 6). The remaining harvest took place primarily in fall (August, September, and October) with a small proportion occurring in summer (June and July).

Harvest seasons varied by species group. For example, the majority of the goose harvest (75.4 percent) and crane harvest (83.1 percent) was taken in spring, while the seabird and loon harvest was nearly evenly divided between spring and fall. Ducks were predominantly taken in the spring, but not to as great an extent as geese and cranes. Swans were the only migratory bird group taken predominantly in the fall, when 58.6 percent of the harvest occurred. The majority of the upland game bird harvest, especially ptarmigan, was taken in winter and spring. Information on harvest seasons by species group is depicted in Figures 7-12.

The seasonality of bird harvests also varied by community. In the inland riverine communities of Ambler, Kiana, Kobuk, and Noatak, more than 90 percent of the migratory bird harvest took place in spring (Fig. 13). Four communities in the region—Kiana, Shungnak, Kobuk, and Kivalina—reported no migratory bird harvests in the fall. In contrast, the migratory bird harvests in the coastal or near-coastal communities of Deering, Buckland, Selawik, and Kotzebue were spread between spring and fall, with 22-45 percent of the harvest occurring in the fall months. Kivalina was the only community to show substantial harvest of migratory birds in summer, most of which probably took place in early June (Fig. 13). This most likely reflects delayed spring conditions because of Kivalina's northern-coastal location rather than a substantially different harvest pattern from the rest of the region. Regional information on

harvest seasons by bird species is presented in Table 9. Information on each community's harvest season by species group for is presented in Table 10.

These seasonal harvest variations by species group and by community provide a general picture of the seasonal location of birds in the Northwest Arctic region. In general, subsistence hunters favor spring waterfowl because the birds are fat at this time and because fresh meat has typically not been available for quite some time. The long, mild days of spring are ideal for waterfowl hunting and the sight and sound of birds after their long winter absence is exhilarating. Additionally, ecological conditions in spring tend to concentrate birds over short periods of time in predictable locations, making for efficient harvest. In the fall, birds tend to be more dispersed throughout much of the region and migrate south gradually over several weeks. At this time of year, local residents are primarily occupied with other harvest activities such as caribou hunting, seal hunting, and berry picking. However, there are key areas, particularly on coastal flats and river deltas, where birds congregate prior to the fall migration, enabling nearby communities to participate in an efficient fall harvest if desired.

## SUBSISTENCE EGG HARVESTS IN THE NORTHWEST ARCTIC REGION

The estimated annual subsistence harvest of bird eggs reported for the Northwest Arctic region was 14,136 eggs (Table 11). Seabird eggs were gathered in the greatest number (12,242 eggs), accounting by far for the greatest proportion of the harvest (86.6 percent) (Figs. 14 and 15). Much smaller quantities of other eggs were gathered, including goose eggs (998 eggs), duck eggs (762 eggs), crane eggs (86 eggs), and swan eggs (48 eggs). No households in the region reported gathering eggs of shorebirds or upland game birds during the study years. Species contributing the most to the regional egg harvest were gulls (56.2 percent), murres (29.3 percent), and Canada geese (6.3 percent) (Table 12).

At a regional level, an average of 8.86 bird eggs were harvested per household (Table 13). Average per capita egg harvests in the region were about 2 eggs per person (Table 14). The largest per household egg harvests were in communities with access to seabird colonies: Buckland (41.60 eggs per household), Deering (29.84 eggs per household), and Kivalina (20.48 eggs per household). Egg harvests in Kotzebue, Noatak, and Noorvik ranged from 3-9 eggs per household. The middle and upper Kobuk River communities of Kiana, Ambler, Shungnak, and Kobuk reported no egg harvests during the study years. Bird nests in this area were widely dispersed, difficult to find, and often in areas not frequented by people during summer months.

Although Kobuk River residents occasionally gathered eggs opportunistically, little if any effort was focused on gathering them.

The largest numbers of eggs were gathered in Kotzebue (6,837 eggs or 48.4 percent of the region's total harvest) and Buckland (3,369 eggs or 23.8 percent) (Table 11). Other communities with egg harvests greater than 1,000 eggs were Deering (1,493 eggs or 10.6 percent of the region's total harvest) and Kivalina (1,413 eggs or 10.0 percent).

## PARTICIPATION IN BIRD HUNTING

An estimated 1,015 households in the Northwest Arctic region annually hunted birds in the mid-1990s, representing about 63.6 percent of the 1,596 households in the region (Table 15). Nearly all households hunting birds were successful in harvesting them (Table 16). In all the communities except one, more than one-half of the households hunted birds during the study year. Participation rates in bird hunting ranged from 34.0 percent of all households in Kiana to 78.0 percent of all households in Noorvik (Table 16). Participation in migratory bird hunting was greatest in the spring with about one-half of the region's households hunting birds in this season (Table 17). Fall had the next greatest participation with 19.5 percent of the region's households hunting migratory birds.

Because subsistence foods are widely shared, more households used birds for food than harvested them. An estimated 78.5 percent of households in the Northwest Arctic region used birds for food during the study year (Table 16). The proportion of households using birds ranged from 69.8 percent of households in Kiana to 94.9 percent in Noorvik. Sharing of birds was widespread with 44.6 percent of households in the region giving birds to other households and 42.4 percent of households receiving birds from other households (Table 16).

An estimated 1,581 persons in the Northwest Arctic region hunted birds during the survey period (Table 15). At a regional level, this was an average of 1.56 hunters per hunting household. All 11 communities reported an average of more than one bird hunter per hunting household. In any given year, a number of factors may influence whether hunters in a household choose to hunt birds; thus the number of active hunters likely varies to some extent from year to year. With a regional population of 6,604, the estimate of 1,581 bird hunters means that about 23.9 percent of the region's population hunted birds during the survey period, or about 1 out of 4 people.

## BIRD AND EGG HARVESTS BY SPECIES

Of the geese, swans, and cranes, Canada geese was the species harvested in the greatest number, accounting for 58.3 percent of the harvest in that category (Table 3). White-fronted geese were next, comprising 28.8 percent of the geese, swan, and crane harvest in the Northwest Arctic region. Other species each comprised eight percent or less of the harvest in this category. Mallards and northern pintails together accounted for about one-half of the duck harvest with American wigeons and black scoters together accounting for another 18.1 percent (Table 3). Other species comprising 2-7 percent of the duck harvest included oldsquaws, northern shovelers, green-winged teal, greater scaup, and lesser scaup.

Of the loons, seabirds, and shorebirds, common loons comprised about one-half of the harvest (Table 3). Smaller numbers of other loon species, murres, and gulls were also taken. Willow ptarmigan accounted for nearly all of the harvest of upland game birds and owls. Other species in this category taken in smaller numbers were rock ptarmigan, spruce grouse, and snowy owl. Of all bird species, willow ptarmigan was harvested in the greatest number during the survey period, accounting for about 28.0 percent of the total bird harvest in the region (Table 3). Information on bird harvests by species for each community is presented in Table 18.

Species identification was uncertain at times. This was especially true for the species of loons, scaups, scoters, mergansers, and eiders and for the subspecies of Canada geese. In the latter case, the distinction between lesser Canada geese and cackling Canada geese was sufficiently questionable that researchers decided to combine the data for these two resources. Nomenclature differences accounted in part for problems in species identification. The common English names for birds listed on the survey form and bird chart often differed from the locally used English names, and thus were unfamiliar to some hunters. Some birds were known primarily by their Iñupiaq name. Hunters also identified birds as much by their behavior and habitat as by their physical appearance, such as coloring. Although an essential identification aid, the bird guide did not provide all the information hunters used in discerning bird species.

Canada geese eggs accounted for more than three-fourths of the egg harvest of geese, swans, and cranes (Table 12). Pintail and mallard eggs represented 73.1 percent of the duck egg harvest. Of the loons, seabirds, and shorebirds, "unknown gull" eggs accounted for the largest percentage (37.3 percent), followed by common murre eggs (24.4 percent), mew gull eggs (16.6 percent), and glaucous gull eggs (10.5 percent). Information on egg harvests by species for each community is presented in Table 19.

# LOCAL KNOWLEDGE OF BIRDS AND EGGS

In each community, interviews were conducted with several bird hunters on their local knowledge of population status, biology, ecology, and hunting of birds. A total of 36 bird hunters were interviewed in the 11 communities. The following section briefly summarizes some of the key respondent information for selected species or species groups. The full text of key respondent notes is presented with the community reports in Appendix 2.

## White-fronted Geese

White-fronted geese were one of the most common geese in the Northwest Arctic region. Locally known as "yellow-legs," "yellow-feet," or "speckle-bellies," white-fronted geese were a species preferred by local residents. They were among the earliest migratory birds to arrive in the region (in late April or early May) and among the earliest to leave in the fall (late August). They nest throughout much of the region on creeks, rivers, islands, and chains of lakes surrounded by willows. White-fronted geese had the reputation for always being fat enough to make a good pot of soup. In the spring, they were among the easiest birds to hunt whereas in the fall they were wary and difficult to catch. Their Iñupiaq name is *kigiyuk*, meaning "they bite," because historically when they were caught in a snare they bit the rope. A Selawik resident said that when obtained as yellow chicks, white-fronted and Canada geese can be raised as pets for the summer, but it was not possible to keep them from flying south in the fall. Hunters' observations on the status of the white-fronted goose population varied. Some believed it was stable, others believed it had increased, and still others thought it had decreased over time.

## Canada Geese

Along with white-fronted geese, Canada geese were the most common geese in the Northwest Arctic region. They were considered to be a desirable bird, although generally not as desirable as white-fronted geese. Locally known as "cacklers" or "honkers," they arrive in the region at about the same time as white-fronted geese (late April or early May), but stay much later into the fall, sometimes as late as the end of September or October. Canada geese feed on berries to a larger extent than white-fronted geese, accounting in part for their late fall departure,

especially in years when berries are abundant. Local residents said that Canada geese sometimes clean out good berry patches before people can get to them.

Canada geese nest throughout much of the region along lakes, on islands, or along the edge of coastal lagoons. They form big flocks on large lakes during the molt. They were fairly easy to hunt in the spring, and in the fall were easier to hunt than white-fronted geese because they were less attentive when flying. Local residents traditionally hunted geese during the molt by herding them with kayaks to shallow areas of lakes where they were killed by wringing their necks or biting their heads to crush their skulls. In the 1990s, a few molting birds were still taken during the summer, usually with shotguns, but this was much less common than in the past. Geese were usually boiled and eaten with seal oil or made into soup. Some hunters believed that the Canada goose population was stable in the region, while others believed it had declined over time.

Most Canada geese in the region are probably lesser Canada geese. When asked about the small subspecies of cackling Canada goose, hunters in the region were not positively familiar with this bird. Throughout the region, hunters often said they had never seen very small Canada geese. A few hunters, however, reported seeing unusually small Canada geese, and suspected these might be the cackling subspecies. A Selawik hunter, for instance, said that in the Selawik and Kotzebue areas he had occasionally seen duck-sized Canada geese arriving from the west, a different direction from which the larger Canada geese come. A Deering hunter noted that 15 years ago he used to see small Canada geese flying fast like brant. A Noatak hunter saw a flock of very small Canada geese near the Wulik River many years ago. In Buckland, a hunter reported occasionally seeing small Canada geese on the mud flats at the mouth of the Buckland River. Whether these sightings were actually cackling Canada geese or simply unusually small lesser Canada geese was unknown. One Kotzebue hunter said that cackling Canada geese were normally not in the Northwest Arctic region, but that stragglers occasionally came through or got mixed up with other geese.

## Snow Geese

Snow geese arrive in the Northwest Arctic region about a week after Canada and white-fronted geese, about the time the tundra begins to have standing water. They are more common in the coastal areas, but also migrate through the region's inland areas in smaller numbers, often flying high. Snow geese typically pass through the region during a ten-day period in the spring, usually in big flocks. Because their migration path varies from year to year, their local abundance in any given year is more variable than other geese species. They are not too particular about

food, eating old berries, cotton grass sprouts, and any greening vegetation. In general, they do not nest in the region, but move on to nesting grounds further north. Occasionally, however, a rare snow goose nests in the region's coastal areas. A Deering hunter said that a flock of snow geese nests near Kiwalik and Cape Espenberg and a Kivalina hunter reported that a few nest behind Cape Thompson. In the fall, snow geese are rarely seen in the region, traveling south by a different route.

Kotzebue hunters said that it was fairly easy to get close to snow geese, especially if a hunter crawled and wore a white parka. Even after a hunter shoots, snow geese often did not take flight. Decoys made of dark tundra and white paper were also quite effective with these birds. A popular hunting area for snow geese in the spring was Kiliqmiaq, between Kotzebue and Kivalina, where the birds often gather. A Selawik hunter said another spring gathering site for snow geese was in the Purcell Mountains. This hunter observed that snow geese were more common in the Selawik area several decades ago. The snow goose is known in Iñupiaq as *kaŋuq* and in English as "white goose."

Emperor Geese

In the Northwest Arctic region, emperor geese are regularly found only on the northern Seward Peninsula. Hunters in other parts of the region reported that they rarely, if ever, see these birds. In the northern Seward Peninsula community of Deering, hunters said they occasionally see emperor geese in the spring and fall, usually in pairs or small groups. The geese nest along the coast west of Deering near Goodhope River and on a large island near Kiwalik. They feed on clams, giving the meat a different flavor that some hunters did not care for. One Deering hunter said emperor geese were fairly scarce, and for that reason he seldom hunted them. Emperor geese were among the last birds to leave in the fall, often remaining until October. In Buckland, a northern Seward Peninsula community east of Deering, emperor geese were less common than in the Deering area. Several Buckland hunters said they had never seen emperor geese, while one hunter said he sees them in late fall in Kiwalik Bay in groups of 20-50. Emperor geese were locally known in English as "gray geese." Some hunters believed that the local emperor goose population was stable, while others believed it had declined over time.

Brant

Brants were the last of the geese to arrive in the Northwest Arctic region in the spring, appearing shortly after snow geese. They pass through the region when the rivers have water, but the coast and lakes are still frozen, typically in late May or early June. In some places, such as Deering, the poor condition of the ice by this time made it difficult for people to hunt these birds. Brants generally travel along the coast in large flocks for three or four weeks in spring, then disappear to the north for the summer. Inland communities along the Kobuk, Selawik, and Noatak rivers often see large flocks of migrating brants flying high overhead in V-formation towards the ocean, but rarely were there opportunities to hunt them. One Shungnak hunter described migrating brants as "a big, black cloud, flying high." Brants were not common in the region in the fall, although hunters on the northern Seward Peninsula (Buckland and Deering) said they see small numbers of the birds at that time of year.

Brants nest in small numbers in limited areas of the Northwest Arctic region. According to Deering hunters, brants nest on islands along Goodhope River and in Killeak Lakes between Lane River and Cape Espenberg. In the past, brants nested on islands at Lane River. Kotzebue hunters reported that brants nested locally in larger numbers in the past, then disappeared. In the past several years, small numbers of brants have started nesting again in the local area, particularly on the Noatak River delta.

Brants were among the fattest waterfowl to arrive in the spring. Because of their soft meat and yellow fat, people enjoyed eating them when they first arrived. One hunter described them as so fat "that when you drop one it bursts open." The northeastern end of Kobuk Lake near Kotzebue is a spring staging area for brants because of the availability of food associated with the late presence of ice. One hunter said if a person waits a moment after shooting at a brant, the others in the flock bunch up and are easy to hit, unlike other geese that spread apart when shot at.

Tundra Swan

Abundant throughout the region, tundra swans arrive in the spring after geese and cranes, and stay late into the fall until just before freeze-up. In September, large flocks of swans congregrate in certain favorable locations, such as grassy areas on Kobuk Lake and coastal flats near Buckland. Hunters nearly universally agreed that swans have increased in number and that nesting pairs are now found on many lakes. Few hunters offered a reason for this increase,

although one believed that diminished human disturbance in swan nesting areas due to a decline in spring muskrat hunting camps has contributed to the increased population.

Swans were known for their ability to fly at night in complete darkness. One Selawik hunter said, "When we hear those flocks go over at night, we know freeze-up is just around the bend." Another resident said, "We use swans and geese around our camp to warn us if something is coming. They are our guards. They always call out when they see trouble or hear something." In the past, swan skins were used for tool bags and for storing milk for babies when traveling so it would not freeze quickly. The Iñupiaq name for tundra swan is *qugruk*.

Hunters had mixed views about the desirability of swan. Some people enjoyed eating them, particularly young swans with gray feathers on their necks. Others rarely hunted them, finding the meat too tough and the birds too big. Several hunters commented that swans were hard to pluck. This seemed to discourage some people from hunting them, while others made sure to pluck the birds when warm. Some hunters skinned swans, especially if the birds were old. Swans were reportedly strong and difficult to kill. They often looked like they were flying slowly, but were actually moving fast, making them easy to miss with a shotgun. When one of a pair is killed, the other stays around for a long time. Several hunters in the region commented on a $500 fine imposed in the past for swan hunting. Although this has not been in effect for years, the perception remains among some local residents that they put themselves at risk of enforcement action when hunting swans.

Sandhill Crane

Called *tattirgaq* in Iñupiaq, sandhill cranes were among the first migratory birds to arrive in the region in spring, usually in late April or early May. As a Kobuk hunter said, "They tell us that spring is here." Cranes nest throughout the region, typically laying two eggs in depressions in the tundra. They aggressively defend their nests, attacking intruders with their sharp beaks. For this reason, and because they have good sight and hearing, cranes are difficult to approach. One hunter commented that even his dog was afraid of cranes. Cranes were known as tough birds, laying their eggs regardless of the weather and remaining in the area even if spring weather turns unexpectedly cold. Cranes generally stayed in the region until late August or September.

Cranes were hunted in small numbers in the Northwest Arctic region. Hunters preferred to take them at the times of year when the birds were fat—early in the spring or late in the fall. Many hunters, however, said they seldom hunted cranes, except when elders yearned for one. Some people did not like to eat cranes because they have seen these birds feed on mice and on

carrion such as dog carcasses. For this reason, some local residents called cranes "dog-eaters." Hunters said that cranes also eat berries, insects, and long worms found in wet tundra. Several people remarked that cranes "eat anything."

One hunter described how cranes and ptarmigan were once partners because they both have a similar hollow bone in their leg that in the past was dried and used for a needle. The crane bone was more commonly used than the ptarmigan bone because of its larger size. One Selawik resident said that cranes were sometimes raised as pets, but they had a tendency to bite and be mean.

Eiders

An ocean bird, eiders were familiar to hunters in coastal areas of the Northwest Arctic region, including Deering, Buckland, Kotzebue, Kivalina, and Noatak (although the latter is an inland community, many residents camp along the coast in spring). Only stray eiders were found in other parts of the region. Of the four eider species in Alaska, common eider was the most abundant in the Northwest Arctic region. They arrive early in the spring, especially around Kivalina where they follow open leads in the ice, showing up before geese. In Deering, hunters see eiders in small flocks after the ice breaks up in May and June. Eiders remain in the region as long as the ocean has ice-free areas, often as late as November or December and sometimes throughout the winter. Deering and Kotzebue hunters said that flocks of eiders occasionally freeze to death when ice closes their open water. Common eiders nest on the northern Seward Peninsula at Lane River, Goodhope River, Kugruk Lagoon, Kiwalik, and Buckland River. They also nest in the Kivalina area and sporadically at Cape Krusenstern. Their down-lined nests are on the ground. Buckland residents said that soon after the eggs hatch the eiders leave the area to follow the ice. Hunters in the region believed that the common eider population was either stable or growing.

Although fairly rare in other coastal areas of the region, king eiders were common in the Kivalina area. One Kotzebue hunter said that the only time he saw lots of king eiders was when strong southerly winds closed offshore leads and pushed the birds towards shore. Another Kotzebue hunter said that about ten pairs of king eiders nest on the Choris Peninsula south of Kotzebue. Spectacled eiders were rare throughout the region. Deering and Kotzebue hunters said they occasionally see pairs or small numbers of them in the spring. Steller's eiders were even more rare than spectacled eiders.

Eider hunting primarily took place in spring, usually by people out seal hunting. In Kotzebue, a hunter said that eiders were the only bird shot off the nest because "you get a nestful of eggs and also a very fat duck." Common eiders are large birds with a different flavor, and they are typically fat and desirable in the spring. A Kivalina resident described eiders as tasting like seal. Other people preferred not to eat eiders, considering them "fishy" or "smelly" especially in the fall as a result of their diet of clams and snails. In years when arctic cod are abundant, eiders are sometimes fat in the fall, but they are more likely to be lean at this time of year.

Other Ducks

Northern pintails were one of the most numerous and preferred ducks in the Northwest Arctic region. They were among the earliest ducks to arrive in the spring, usually in early May, when ice is still present. Pintails were fat when they first arrived, and local residents liked to hunt them at this time. In Buckland, some hunters also particularly liked young pintails just before they fly. Some people called pintails "night-shifters" because they start flying at sunset and fly until two or three o'clock in the morning. Their Iñupiaq name is *kurugaq*. American wigeons, mallards, and northern shovelers (the latter called "spoonbill" or *aluutaq* in Iñupiaq) were also common ducks that arrived in the region at about the same time as or slightly after pintails. Green-winged teal were found throughout the region but were rarely hunted because of their small size, accounting for their local name "cup-a-soup."

A second wave of ducks arrived a week or so later, usually in mid-May when there was more open water. These included scoters, oldsquaw, scaups, and mergansers. Scoters, called "black ducks," "devil ducks," or "whistling ducks," stayed in the region all summer, gathering by the hundreds in the ocean in the Buckland area in the fall. They were well-liked by some residents, especially in the spring. Scoters were described as making an echo noise when they took off and a whistling sound when flying. They were considered tough, fast, and difficult to kill. Oldsquaws, often called by their Iñupiaq name *ahaaliq* (for the sound they make), were generally considered good eating when they first showed up in the spring. They were tamer than most birds and easier to catch. Scaups were described as hard to pluck. They molted at the same time as oldsquaws, preferring larger lakes than other ducks. Because of their later arrival, scoters and oldsquaws remained fat later into the spring and hunting therefore lasted longer for them than for pintails and mallards.

Mergansers, widely known as "fish ducks," arrived in the region after break-up and stayed late into the fall until just before freeze-up. Local residents preferred not to eat these because of

their stringy, bony meat and their fishy taste. Harlequin ducks, known to some as "daisy ducks" because of their pretty coloring, were found along the coast and in swift creeks, but were also rarely hunted.

Hunting of molting ducks was less common now than in the past, but small numbers were still occasionally taken in the 1990s. Local residents said that molting ducks are fat and easy to pluck. Because they do not use their muscles, their meat is very tender. A Deering hunter said that molting ducks scatter and try to hide when chased, but are often only crouched down and easy to kill with a stick. A Noatak hunter said it is difficult to chase down ducks on land, but if a person is able to catch the leading duck the rest will lay down, making it easy to wring their necks. A Kiana hunter recalled his grandparents catching molting birds from kayaks using a four-foot long harpoon with rigid wires and a three-pronged barbed hook. In the Kotzebue area, pintails were the most commonly taken molting bird. When driven up onto land, pintails freeze in place, making it possible to grab them and wring their necks.

For residents of the Northwest Arctic region, ducks were generally second in preference to geese because of their smaller size. Their later arrival in the spring also made them more difficult to hunt because of deteriorating snow and ice conditions. Local residents reported that fewer birds were taken now for subsistence than in the past. There were several reasons for this, including the decline in spring muskrat hunting camps, the availability of more food options (both wild and commercial), and the easier storage of food during warm months as a result of freezers. One elder said that in the past birds saved many people from starvation. Many hunters believed that the local population of ducks was generally stable, although in any given year weather and environmental conditions might affect the number or availability of certain species.

Loons

Four species of loons were found in the Northwest Arctic region: red-throated, Pacific (arctic), common, and yellow-billed. The yellow-billed loon, more common along the coast than inland, is the largest and perhaps most distinctive loon, known locally in Iñupiaq as *tuutlik* and in English as "king loon." Because they need stretches of open water to land and take off, loons arrive in the region later in the spring than many of the ducks. They nest in the region on lake shores and islands. Local residents considered loons dangerous when nesting because the birds were known to poke holes in canoes and kayaks with their beaks. When disturbed by intruders, loons roll their eggs into the water, retrieving them when the danger has passed. Mergansers were said to do the same.

Loons were hunted in small numbers in the Northwest Arctic region, but were generally not a preferred bird. Several hunters commented that loons tasted fishy and hunted them only when nothing else was available to eat. Others enjoyed eating loons occasionally, comparing their taste to seals. Loons are fat in spring when they first arrive, and were generally considered best for eating at this time. A favored method for preparing a loon was to pluck the feathers and remove the meat, leaving the fat attached to the skin. With the fat on the inside, the skin was then sewn shut and boiled along with the meat. When finished, the skin and liquified fat were cut into pieces and eaten with the cooked meat. Because they were durable, light, roomy, and waterproof, loon skins (with the feathers) were sometimes dried and fitted with a zipper to make a carrying bag for ammunition, tools, sewing notions, or other items. Before zippers were available, twine was used to close the bag. Although not as common as they once were, these bags are still occasionally made. Loon skins were also used for moccasins, parkas, and as a thermos to keep food from freezing on winter trips. One hunter noted that loons could be taken at any time to make skin bags because the birds do not molt during their stay in the region.

Most hunters believed that the local loon population was stable, in part because the birds were lightly hunted. One Kotzebue hunter, however, noted that yellow-billed loons were scarcer than they used to be.

Murres and Puffins

Murres and puffins were found in three general areas in the Northwest Arctic region: the Cape Thompson area north of Kivalina, Chamisso Island in southern Kotzebue Sound, and the coastal bluffs in the Deering area. Locally known as "crowbills," murres arrive in the region early in the spring if there are open leads in the sea ice. In Kivalina, hunters said that murres arrive at the same time as king eiders. Murres nest on steep, rocky bluffs and feed on fish. Their eggs were well-liked by local residents, but the birds themselves were seldom hunted. Several hunters said that in the past murres were more commonly eaten, especially when other fresh meat was scarce. Others said that elders occasionally like to eat murres. Like eiders, murres were commonly aged before being cooked. Some hunters believed that the local murre population had increased, others believed it had decreased, and still others thought it was stable.

Puffins were rarely hunted, and their eggs were not as well-liked as murres. Puffins nest on cliffs where they burrow into soft mud and rock crevices. When a person reaches into a burrow, a puffin sometimes bites and doesn't let go. For this reason, their eggs are more difficult to gather than those of murres. Horned puffins were the most common puffin species in the region.

Hunters generally believed that the puffin population was stable, although one Deering hunter noted that tufted puffins had increased in number in the local area.

## Ptarmigan and Grouse

Ptarmigan were abundant throughout the Northwest Arctic region in the mid- to late 1990s. They were known to "come and go," seldom staying in one area for a long time. Several hunters said that ptarmigan follow caribou, eating in places where caribou pawed through the snow to the moss and berries. A Kivalina resident said that when foxes are present ptarmigan move up into the hills.

Willow ptarmigan, called *aqargiq* in Iñupiaq, was the most common ptarmigan species in the region. In winter, they prefer to be along creeks where their primary winter food—willows—is abundant. Ptarmigan are considered good to eat, although they are not hunted as much now as in the past. A Kivalina hunter observed that "you get hungry really quick" after eating ptarmigan. In the 1990s, most ptarmigan hunting took place between freeze-up and break-up. Traditionally snares and nets were used to catch ptarmigan. Ptarmigan feathers were said to be particularly absorbent and were traditionally used to wipe things up, like paper towels are used today.

Several hunters said that rock ptarmigan, locally known as "mountain ptarmigan," are usually found in hills and mountainous areas, but are sometimes found in river valleys. These are smaller than willow ptarmigan and have a black stripe near their eye. One Noatak hunter commented that rock ptarmigan look almost pink in the snow.

Spruce grouse were found throughout forested areas of the region and were hunted in small numbers. Local residents said grouse are attracted to the smell of smoke, coming close to camps with open fires. The Iñupiaq name for spruce grouse is *napaaqtuum aqargiq*. Spruce grouse are also occasionally called "brown ptarmigan."

## Eggs

Gull eggs were among the most popular eggs to gather, especially in coastal areas of the Northwest Arctic region. The location of gull eggs was well-known, and they were among the first eggs available, usually beginning in the last week of May and lasting until the second week of June. Gulls lay additional eggs when some are taken from their nests. By gathering eggs, people can continue getting fresh ones. To test an egg, local residents put it in water. If it sinks,

it is good to eat. If it floats, it is about to hatch and not good to eat. These are put back in the nest. In Kivalina, residents make sure to test any gull eggs gathered after June 15. One Kotzebue resident commented that one gull egg is a fine replacement for two chicken eggs when making a cake.

Murre eggs were also popular in the Northwest Arctic region. Kotzebue and Buckland residents gather murre eggs at Chamisso Island in southern Kotzebue Sound around July 4th. Kivalina residents gather murre eggs in the Cape Thompson area in early July as well. In the Deering area, residents said murre eggs are good from July 4th to the end of July. To gather murre eggs, local residents, usually men, climb cliffs where the birds are nesting and collect eggs. They then slip them into the neck opening of their parka covers, which are tied at the waist by a belt. In Deering, men tie ropes to pegs on the tops of cliffs, then climb down holding the rope with one hand, collecting eggs in a jacket or pack as they go. As many trips are made up and down the rope as needed. One Deering resident said he likes to use a ¾-inch manila rope that was given to him by a Shishmaref elder. Other people preferred thinner ropes. While one person climbed, a second person watched the peg, and a third person stayed in the boat at the base of the cliffs in case the climber fell. Local residents selected areas to climb where, if they fell, they would land in water rather than on rocks. Sometimes climbers lowered a pack full of eggs to a waiting boat below, where the pack was emptied and sent up again. In some areas in the region, people did not use ropes to climb for eggs. One Deering resident said that the young men often did not use ropes to climb. A Kivalina hunter said that he used a rope when first being taught by an older man how to climb for eggs, but afterward he climbed without a rope. Local residents said they do not climb for eggs when it is raining because the cliffs become slippery and smelly.

When eggs are taken from the nest, murres lay more, but these later ones are smaller in size. Widely shared throughout a community, murre eggs are primarily eaten fresh by boiling or scrambling. In the past, eggs were hard-boiled then stored in seal oil or reindeer fat and kept cool. While puffin eggs are sometimes gathered in small numbers at the same time as murre eggs, these are smaller and not as desirable.

Goose and duck eggs were gathered by some residents in the region, particularly in Buckland and Kotzebue, but these were often difficult to find and generally not sought after. In Buckland, duck eggs are gathered at the end of May or in June. Pintails start laying eggs by the end of May. If a person takes all the eggs from a nest, geese and pintails will tear up the ground looking for their eggs. But if a couple eggs are left, geese and pintails will lay more. Eider eggs are large, and enjoyed by some people. One Deering hunter said he used to get goose eggs, but now finds it easier to buy chicken eggs. Another Deering resident thought goose eggs tasted like perfume, and did not like to eat them.

Other species of eggs were rarely gathered. Eggs of terns, plovers, and snipe were occasionally gathered but their small size made them not worth a great deal of effort. Swan eggs were gathered in small numbers, although some residents did not like them because of their large size. In Selawik, eggs were primarily used for quick meals while out camping and seldom brought home. This included occasional crane eggs, which are laid in late May. One fist-sized crane egg made a meal for one person. Crane nests usually have two eggs, only one of which is taken. Loon eggs are collected now and then, but these are hard to find and some people did not like them. Several local residents said fewer eggs were gathered now than in the past when chicken eggs were not available.

## COMMUNITY REPORTS

Appendix 2 provides community summaries of subsistence bird harvests for the 11 communities in the Northwest Arctic Borough. Using tables and charts, these summaries describe subsistence bird patterns for each community and were sent to each community's tribal council for review and approval. This research was conducted jointly by Maniilaq Association and the Division of Subsistence, Alaska Department of Fish and Game. Two communities, Kiana and Selawik, were surveyed twice with results from both surveys included in the appendix. For communities where key respondent interviews took place, notes from these interviews are attached to the community report. Information from these community reports is summarized in this regional overview.

# REFERENCES CITED


Alaska Department of Community and Economic Development

1999 Alaska Community Database. http://www.comregaf.state.ak.us/CF_CUSTM.htm

Alaska Department of Labor

1999 *Alaska Population Overview: 1998 Estimates.* Juneau.

Anderson, Douglas B., Wanni W. Anderson, Ray Bane, Richard K. Nelson, Nita Sheldon Towarak

1998 *Kuuvangmiut Subsistence: Traditional Eskimo Life in the Latter Twentieth Century.* National Park Service and Northwest Arctic Borough School District.

Burch, Ernest S. Jr.

1985 *Subsistence Production in Kivalina, Alaska: A Twenty-Year Perspective.* Technical Paper No. 128, Alaska Department of Fish and Game, Division of Subsistence, Juneau.

Foote, D.C., and H.A. Williamson

1966 *A Human Geographical Study.* In Norman J. Wilimovsky and John N. Wolfe, eds., *Environment of the Cape Thompson Region, Alaska.* U.S. Atomic Energy Commission, Oak Ridge, Tennessee.

Minn, Beverly

1982 Report on Subsistence Harvest of Migratory Birds in Sisualik, Deering, and Kivalina, 1982. U.S. Fish and Wildlife Service, Kotzebue, Alaska.

1983 Report on Subsistence Harvest of Migratory Birds in the Kotzebue Sound Region, 1983. U.S. Fish and Wildlife Service, Kotzebue, Alaska.

Paige, Amy W., Cheryl L. Scott, David B. Andersen, Susan Georgette, and Robert J. Wolfe

1996 *Subsistence Use of Birds in the Bering Strait Region, Alaska.* Technical Paper No. 239, Alaska Department of Fish and Game, Division of Subsistence, Juneau.

Patterson, Art

1974 *Subsistence Harvests in Five Native Regions.* Joint Federal-State Land Use Planning Commission for Alaska, Anchorage.

Saario, Doris J. and Brina Kessel

1966 *Human Ecological Investigations at Kivalina.* In Norman J. Wilimovsky and John N. Wolfe, eds., *Environment of the Cape Thompson Region, Alaska.* U.S. Atomic Energy Commission, Oak Ridge, Tennessee.

Uhl, William R. and Carrie K. Uhl

1977 *Tagiumsinaaqmiit, Ocean Beach Dwellers of the Cape Krusenstern Area: Subsistence Patterns.* Cooperative Park Studies Unit, University of Alaska, Fairbanks, Occasional Paper 14.

1979 *The Noatak National Preserve. Nuatakmitt: A Study of Subsistence Use of Renewable Resources in the Noatak River Valley.* Cooperative Park Studies Unit, University of Alaska, Fairbanks, Occasional Paper 19.

Wolfe, Robert J. and Amy W. Paige

1995 *The Subsistence Harvest of Black Brant, Emperor Geese, and Eider Ducks in Alaska.* Technical Paper No. 234, Alaska Department of Fish and Game, Division of Subsistence, Juneau,.

# TABLES AND FIGURES

## Table 1. Communities and Households Surveyed, Northwest Arctic Region

| Community | Survey Year | Type of Sample | Total Households | Sampled Households | Percent Surveyed | Study Year Population[1] | Mean Household Size | Percent Alaska Native[2] |
|---|---|---|---|---|---|---|---|---|
| Ambler | Nov 97-Oct 98 | 50% Random | 77 | 35 | 45.5% | 335 | 4.4 | 89.7% |
| Buckland | Nov 96-Oct 97 | 50% Random | 81 | 40 | 49.4% | 411 | 5.1 | 95.0% |
| Deering | Nov 97-Oct 97 | Census | 50 | 38 | 76.0% | 160 | 3.2 | 94.3% |
| Kiana | Nov 93-Oct 94 | 50% Random | 104 | 49 | 47.1% | 395 | 3.8 | 93.5% |
| | Nov 96-Oct 97 | 50% Random | 107 | 53 | 49.5% | 397 | 3.7 | |
| Kivalina | Nov 96-Oct 97 | 50% Random | 69 | 33 | 47.8% | 355 | 5.1 | 97.5% |
| Kobuk | Nov 96-Oct 97 | Census | 25 | 25 | 100.0% | 79 | 3.2 | 89.9% |
| Kotzebue | Nov 97-Oct 98 | Two Strata | 763 | 98 | 12.8% | 2,944 | 3.9 | 75.1% |
| Noatak | Nov 97-Oct 97 | 50% Random | 97 | 38 | 39.2% | 403 | 4.2 | 96.7% |
| Noorvik | Nov 96-Oct 97 | 50% Random | 121 | 59 | 48.8% | 573 | 4.7 | 93.8% |
| Selawik | Nov 93-Oct 94 | 50% Random | 131 | 65 | 49.6% | 651 | 5.0 | 95.5% |
| | Nov 97-Oct 98 | 50% Random | 151 | 60 | 39.7% | 706 | 4.7 | |
| Shungnak | Nov 93-Oct 94 | Census | 55 | 50 | 90.9% | 239 | 4.3 | 94.6% |
| **Total Surveyed Communities[3]** | | | 1,596 | 529 | 33.1% | 6,602 | 4.1 | 87.1% |

[1] Source: Alaska Department of Labor 1999.

[2] Source: Alaska Community Database, Alaska Department of Community and Economic Development, 1990 census data.

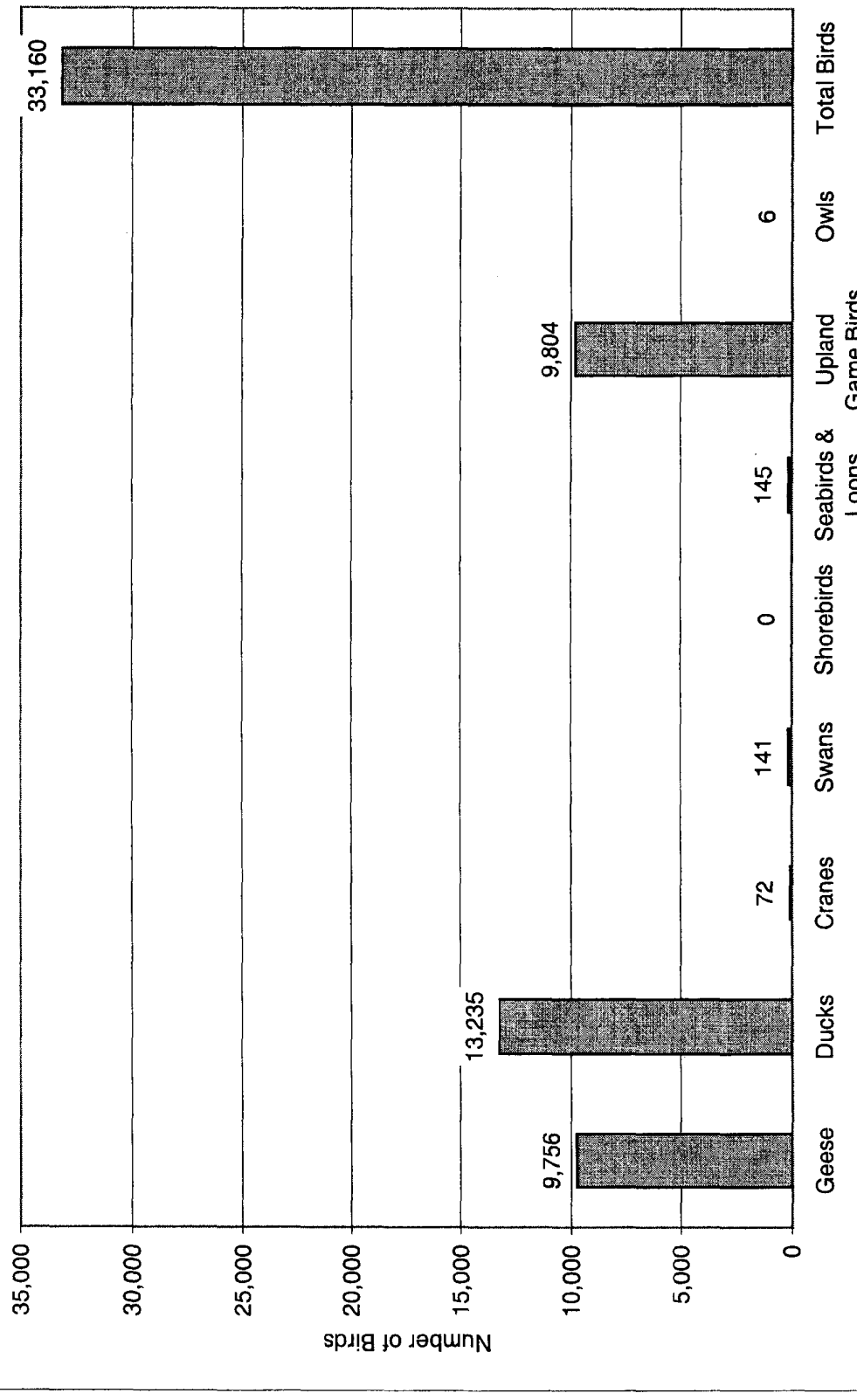
[3] Totals include only most recent year in communities where more than one year of data is available.

## Table 2. Bird Harvests by Community and Study Year, Northwest Arctic Region

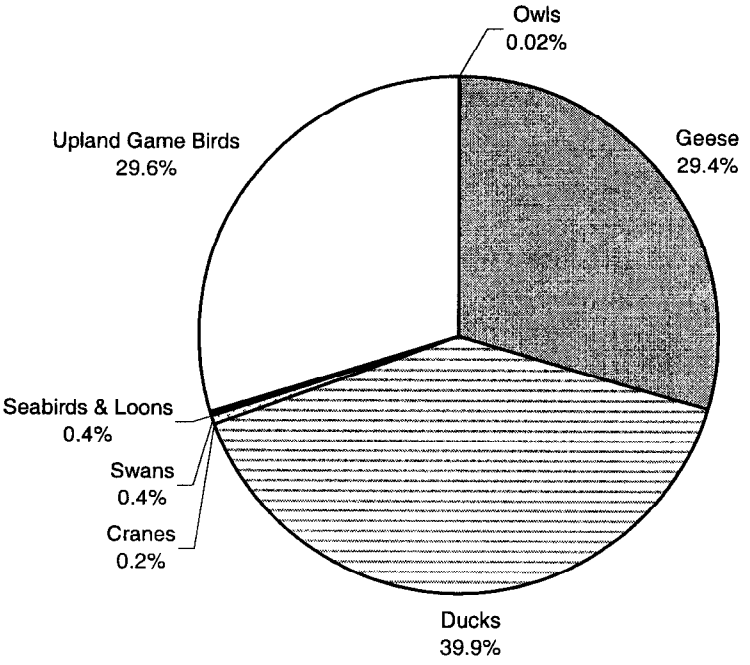
| Community | Study Year | Geese | Ducks | Cranes | Swans | Shorebirds | Seabirds & Loons | Total Migratory Birds | Upland Game Birds | Owls | Total Birds |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ambler | 1997 | 686 | 1,126 | 0 | 2 | 0 | 7 | 1,822 | 583 | 0 | 2,405 |
| Buckland | 1996 | 739 | 1,061 | 6 | 4 | 0 | 43 | 1,853 | 255 | 0 | 2,108 |
| Deering | 1997 | 196 | 255 | 7 | 3 | 0 | 25 | 486 | 128 | 0 | 614 |
| Kiana | 1993 | 320 | 588 | 0 | 2 | 0 | 2 | 913 | 168 | 0 | 1,081 |
| | 1996 | 333 | 541 | 0 | 0 | 0 | 0 | 874 | 271 | 0 | 1,145 |
| Kivalina | 1996 | 328 | 48 | 0 | 0 | 0 | 0 | 376 | 42 | 0 | 418 |
| Kobuk | 1996 | 327 | 377 | 4 | 2 | 0 | 0 | 710 | 83 | 0 | 793 |
| Kotzebue | 1997 | 4,324 | 3,600 | 31 | 91 | 0 | 2 | 8,048 | 5,530 | 0 | 13,578 |
| Noatak | 1997 | 311 | 340 | 5 | 0 | 0 | 0 | 656 | 380 | 5 | 1,041 |
| Noorvik | 1996 | 1,101 | 2,834 | 16 | 33 | 0 | 68 | 4,052 | 1,114 | 0 | 5,166 |
| Selawik | 1993 | 722 | 699 | 0 | 10 | 0 | 0 | 1,431 | 331 | 0 | 1,762 |
| | 1997 | 903 | 1,817 | 3 | 0 | 0 | 0 | 2,723 | 997 | 0 | 3,720 |
| Shungnak | 1993 | 508 | 1,236 | 0 | 6 | 0 | 0 | 1,750 | 421 | 1 | 2,172 |
| **TOTAL**[1] | | **9,756** | **13,235** | **72** | **141** | **0** | **145** | **23,350** | **9,804** | **6** | **33,160** |
| | | 29.4% | 39.9% | 0.2% | 0.4% | 0.0% | 0.4% | 70.4% | 29.6% | 0.0% | 100.0% |

[1] Totals include only most recent year in communities where more than one year of data is available.

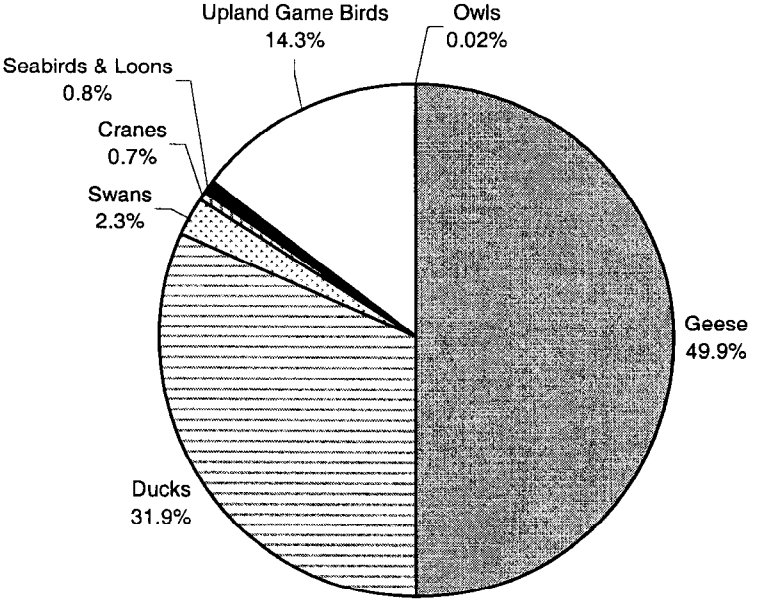
**Fig. 1. Subsistence Bird Harvests, Northwest Arctic Region**



## Fig. 2. Composition of Bird Harvests by Number, Northwest Arctic Region




## Fig. 3. Composition of Bird Harvests by Weight, Northwest Arctic Region



## Table 3. Bird Harvests by Species, Northwest Arctic Region

| | BIRDS | | | | | |
|---|---|---|---|---|---|---|
| | Number | Percent of Category | Percent of All Birds | Pounds | Percent of Category | Percent of All Birds |
| **GEESE, SWANS, AND CRANES** | | | | | | |
| White-fronted Geese | 2,871 | 28.8% | 8.7% | 12,170 | 33.7% | 17.9% |
| Snow Geese | 163 | 1.6% | 0.5% | 656 | 1.8% | 1.0% |
| Emperor Geese | 117 | 1.2% | 0.4% | 543 | 1.5% | 0.8% |
| Canada Geese | 5,812 | 58.3% | 17.5% | 18,760 | 52.0% | 27.6% |
| Brant | 734 | 7.4% | 2.2% | 1,675 | 4.6% | 2.5% |
| Unknown Geese | 60 | 0.6% | 0.2% | 201 | 0.6% | 0.3% |
| Sandhill Crane | 72 | 0.7% | 0.2% | 480 | 1.3% | 0.7% |
| Tundra Swan | 141 | 1.4% | 0.4% | 1,577 | 4.4% | 2.3% |
| **Total** | **9,970** | **100.0%** | **30.1%** | **36,062** | **100.0%** | **53.0%** |
| **DUCKS** | | | | | | |
| Northern Pintail | 3,079 | 23.3% | 9.3% | 4,803 | 22.1% | 7.1% |
| American Wigeon | 1,299 | 9.8% | 3.9% | 1,703 | 7.9% | 2.5% |
| Mallard | 3,520 | 26.6% | 10.6% | 6,862 | 31.6% | 10.1% |
| Northern Shoveler | 701 | 5.3% | 2.1% | 763 | 3.5% | 1.1% |
| Greater Scaup | 307 | 2.3% | 0.9% | 518 | 2.4% | 0.8% |
| Lesser Scaup | 286 | 2.2% | 0.9% | 372 | 1.7% | 0.5% |
| Canvasback | 179 | 1.4% | 0.5% | 356 | 1.6% | 0.5% |
| Green-winged Teal | 321 | 2.4% | 1.0% | 165 | 0.8% | 0.2% |
| Common Merganser | 38 | 0.3% | 0.1% | 88 | 0.4% | 0.1% |
| Red-breasted Merganser | 2 | 0.0% | 0.0% | 2 | 0.0% | 0.0% |
| Bufflehead | - | - | - | - | - | - |
| Harlequin | 4 | 0.0% | 0.0% | 4 | 0.0% | 0.0% |
| Oldsquaw | 871 | 6.6% | 2.6% | 1,281 | 5.9% | 1.9% |

## Table 3. (con't) Bird Harvests by Species, Northwest Arctic Region

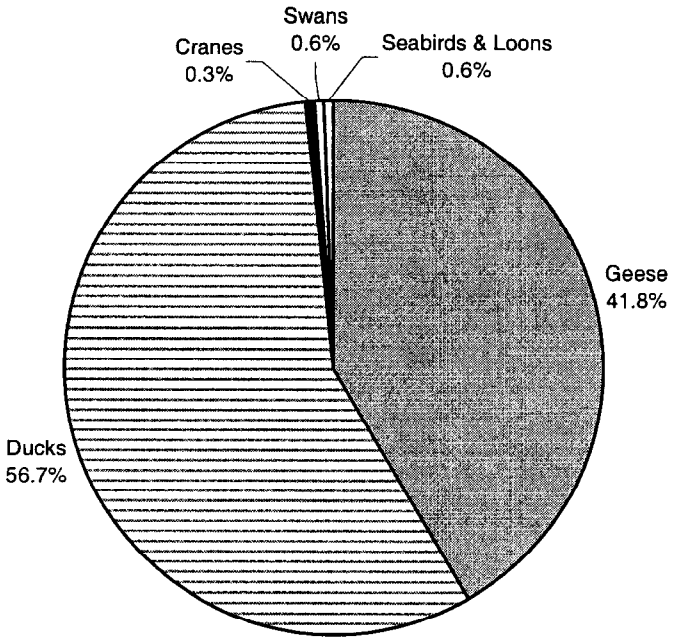
| | BIRDS | | | | | |
|---|---|---|---|---|---|---|
| | Number | Percent of Category | Percent of All Birds | Pounds | Percent of Category | Percent of All Birds |
| Common Goldeneye | 44 | 0.3% | 0.1% | 67 | 0.3% | 0.1% |
| Black Scoter | 1,099 | 8.3% | 3.3% | 1,932 | 8.9% | 2.8% |
| Surf Scoter | 286 | 2.2% | 0.9% | 453 | 2.1% | 0.7% |
| White-winged Scoter | 101 | 0.8% | 0.3% | 234 | 1.1% | 0.3% |
| Common Eider | 104 | 0.8% | 0.3% | 432 | 2.0% | 0.6% |
| King Eider | 27 | 0.2% | 0.1% | 72 | 0.3% | 0.1% |
| Spectacled Eider | - | - | - | - | - | - |
| Steller's Eider | 115 | 0.9% | 0.3% | 167 | 0.8% | 0.2% |
| Unknown Eider | 6 | 0.0% | 0.0% | 19 | 0.1% | 0.0% |
| Unknown Ducks | 850 | 6.4% | 2.6% | 1,395 | 6.4% | 2.0% |
| **Total** | **13,239** | **100.0%** | **39.9%** | **21,688** | **100.0%** | **31.9%** |
| | | | | | | |
| **LOONS, SEABIRDS, AND SHOREBIRDS** | | | | | | |
| Common Loon | 71 | 49.7% | 0.2% | 385 | 67.5% | 0.6% |
| Pacific (Arctic) Loon | 2 | 1.4% | 0.0% | 7 | 1.2% | 0.0% |
| Red-throated Loon | 6 | 4.2% | 0.0% | 18 | 3.2% | 0.0% |
| Yellow-billed Loon | - | - | - | - | - | - |
| Unknown Loon | 1 | 0.7% | 0.0% | 7 | 1.2% | 0.0% |
| Common Murre | 22 | 15.4% | 0.1% | 37 | 6.5% | 0.1% |
| Thick-billed Murre | 1 | 0.7% | 0.0% | 2 | 0.4% | 0.0% |
| Unknown Murre | - | - | - | - | - | - |
| Black Guillemot | - | - | - | - | - | - |
| Sabine's Gull | - | - | - | - | - | - |
| Mew Gull | 40 | 28.0% | 0.1% | 114 | 20.0% | 0.2% |
| Glaucous Gull | - | | - | - | - | - |
| Unknown Gull | - | | - | - | - | - |

## Table 3. (con't) Bird Harvests by Species, Northwest Arctic Region

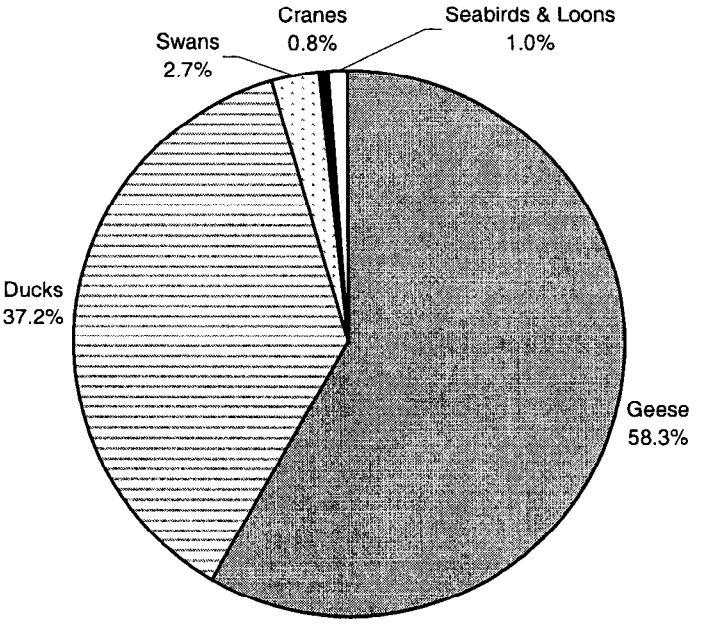
| | BIRDS | | | | | |
|---|---|---|---|---|---|---|
| | Number | Percent of Category | Percent of All Birds | Pounds | Percent of Category | Percent of All Birds |
| Arctic Tern | - | - | - | - | - | - |
| Auklets | - | - | - | - | - | - |
| Puffins | - | - | - | - | - | - |
| Cormorants | - | - | - | - | - | - |
| Unknown Seabirds | - | - | - | - | - | - |
| Plover | - | - | - | - | - | - |
| Common Snipe | - | - | - | - | - | - |
| **Total** | **143** | **100.0%** | **0.4%** | **570** | **100.0%** | **0.8%** |
| | | | | | | |
| **UPLAND GAME BIRDS AND OWLS** | | | | | | |
| Willow Ptarmigan | 9,274 | 94.5% | 28.0% | 9,274 | 94.9% | 13.6% |
| Rock Ptarmigan | 357 | 3.6% | 1.1% | 357 | 3.7% | 0.5% |
| Spruce Grouse | 172 | 1.8% | 0.5% | 122 | 1.2% | 0.2% |
| Snowy Owl | 6 | 0.1% | 0.0% | 17 | 0.2% | 0.0% |
| **Total** | **9,809** | **100.0%** | **29.6%** | **9,770** | **100.0%** | **14.3%** |
| | | | | | | |
| **Regional Total** | **33,161** | | **100.0%** | **68,090** | | **100.0%** |

Note: Totals differ slightly from Tables 2 and 4 due to rounding error. Dashes (-) indicate no harvest.

## Fig. 4. Composition of Migratory Bird Harvests by Number, Northwest Arctic Region




## Fig. 5. Composition of Migratory Bird Harvests by Weight, Northwest Arctic Region



## Table 4. Bird Harvests in Pounds by Community, Northwest Arctic Region

| Community | Study Year | Geese | Ducks | Cranes | Swans | Shorebirds | Seabirds & Loons | Total Migratory Birds | Upland Game Birds | Owls | Total Pounds |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ambler | 1997 | 2,456 | 1,870 | 0 | 25 | 0 | 36 | 4,387 | 568 | 0 | 4,955 |
| Buckland | 1996 | 2,714 | 1,665 | 41 | 45 | 0 | 125 | 4,590 | 254 | 0 | 4,844 |
| Deering | 1997 | 736 | 425 | 44 | 30 | 0 | 51 | 1,287 | 128 | 0 | 1,415 |
| Kiana | 1996 | 1,238 | 933 | 0 | 0 | 0 | 0 | 2,171 | 244 | 0 | 2,415 |
| Kivalina | 1996 | 932 | 153 | 0 | 0 | 0 | 0 | 1,085 | 42 | 0 | 1,127 |
| Kobuk | 1996 | 1,253 | 634 | 27 | 22 | 0 | 0 | 1,937 | 83 | 0 | 2,020 |
| Kotzebue | 1997 | 15,185 | 6,055 | 206 | 1,025 | 0 | 9 | 22,479 | 5,530 | 0 | 28,009 |
| Noatak | 1997 | 1,222 | 557 | 34 | 0 | 0 | 0 | 1,813 | 377 | 14 | 2,204 |
| Noorvik | 1996 | 3,680 | 4,671 | 111 | 368 | 0 | 348 | 9,178 | 1,108 | 0 | 10,286 |
| Selawik | 1997 | 2,645 | 2,807 | 17 | 0 | 0 | 0 | 5,470 | 997 | 0 | 6,467 |
| Shungnak | 1993 | 1,943 | 1,916 | 0 | 62 | 0 | 0 | 3,921 | 421 | 3 | 4,345 |
| **TOTAL** | | **34,004** | **21,686** | **480** | **1,577** | **0** | **569** | **58,318** | **9,752** | **17** | **68,087** |
| | | 49.9% | 31.9% | 0.7% | 2.3% | 0.0% | 0.8% | 85.7% | 14.3% | 0.0% | 100.0% |

## Table 5. Per Capita Bird Harvests, Northwest Arctic Region (Number of Birds Per Person)

| Community | Study Year | Geese | Ducks | Cranes | Swans | Shorebirds | Seabirds & Loons | Total Migratory Birds Per Person | Upland Game Birds | Owls | Total Birds Per Person |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ambler | 1997 | 2.08 | 3.41 | 0.00 | 0.01 | 0.00 | 0.02 | 5.52 | 1.77 | 0.00 | 7.29 |
| Buckland | 1996 | 1.95 | 2.80 | 0.02 | 0.01 | 0.00 | 0.11 | 4.89 | 0.67 | 0.00 | 5.57 |
| Deering | 1997 | 1.24 | 1.62 | 0.04 | 0.02 | 0.00 | 0.16 | 3.08 | 0.81 | 0.00 | 3.88 |
| Kiana | 1996 | 0.84 | 1.37 | 0.00 | 0.00 | 0.00 | 0.00 | 2.21 | 0.68 | 0.00 | 2.89 |
| Kivalina | 1996 | 0.92 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 1.06 | 0.12 | 0.00 | 1.18 |
| Kobuk | 1996 | 3.21 | 3.70 | 0.04 | 0.02 | 0.00 | 0.00 | 6.96 | 0.81 | 0.00 | 7.77 |
| Kotzebue | 1997 | 1.30 | 1.08 | 0.01 | 0.03 | 0.00 | 0.00 | 2.42 | 1.66 | 0.00 | 4.08 |
| Noatak | 1997 | 0.77 | 0.84 | 0.01 | 0.00 | 0.00 | 0.00 | 1.62 | 0.94 | 0.01 | 2.57 |
| Noorvik | 1996 | 1.78 | 4.58 | 0.03 | 0.05 | 0.00 | 0.11 | 6.54 | 1.80 | 0.00 | 8.34 |
| Selawik | 1997 | 1.25 | 2.52 | 0.00 | 0.00 | 0.00 | 0.00 | 3.78 | 1.39 | 0.00 | 5.17 |
| Shungnak | 1993 | 2.05 | 4.99 | 0.00 | 0.02 | 0.00 | 0.00 | 7.07 | 1.70 | 0.00 | 8.78 |
| **TOTAL** | | **1.39** | **1.88** | **0.01** | **0.02** | **0.00** | **0.02** | **3.32** | **1.39** | **0.00** | **4.71** |

## Table 6. Bird Harvests Per Household, Northwest Arctic Region (Number of Birds Per Household)

| Community | Study Year | Geese | Ducks | Cranes | Swans | Shorebirds | Seabirds & Loons | Total Migratory Birds Per Household | Upland Game Birds | Owls | Total Birds Per Household |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ambler | 1997 | 8.91 | 14.62 | 0.00 | 0.03 | 0.00 | 0.09 | 23.66 | 7.57 | 0.00 | 31.23 |
| Buckland | 1996 | 9.12 | 13.10 | 0.07 | 0.05 | 0.00 | 0.53 | 22.88 | 3.15 | 0.00 | 26.02 |
| Deering | 1997 | 3.92 | 5.10 | 0.14 | 0.06 | 0.00 | 0.50 | 9.72 | 2.56 | 0.00 | 12.26 |
| Kiana | 1996 | 3.11 | 5.06 | 0.00 | 0.00 | 0.00 | 0.00 | 8.17 | 2.53 | 0.00 | 10.70 |
| Kivalina | 1996 | 4.75 | 0.70 | 0.00 | 0.00 | 0.00 | 0.00 | 5.45 | 0.61 | 0.00 | 6.07 |
| Kobuk | 1996 | 13.08 | 15.08 | 0.13 | 0.08 | 0.00 | 0.00 | 28.40 | 3.32 | 0.00 | 31.72 |
| Kotzebue | 1997 | 5.67 | 4.72 | 0.04 | 0.12 | 0.00 | 0.00 | 10.55 | 7.25 | 0.00 | 17.80 |
| Noatak | 1997 | 3.21 | 3.51 | 0.05 | 0.00 | 0.00 | 0.00 | 6.76 | 3.92 | 0.05 | 10.74 |
| Noorvik | 1996 | 9.10 | 23.42 | 0.64 | 0.27 | 0.00 | 0.56 | 33.49 | 9.21 | 0.00 | 42.69 |
| Selawik | 1997 | 5.98 | 12.03 | 0.02 | 0.00 | 0.00 | 0.00 | 18.03 | 6.60 | 0.00 | 24.64 |
| Shungnak | 1993 | 9.24 | 22.47 | 0.00 | 0.11 | 0.00 | 0.00 | 31.82 | 7.65 | 0.02 | 39.49 |
| **TOTAL** | | **6.11** | **8.29** | **0.05** | **0.09** | **0.00** | **0.09** | **14.63** | **6.14** | **0.00** | **20.78** |

## Table 7. Bird Harvests Per Household in Pounds, Northwest Arctic Region (Number of Pounds Per Household)

| Community | Study Year | Geese | Ducks | Cranes | Swans | Shorebirds | Seabirds & Loons | Total Pounds of Migratory Birds Per Household | Upland Game Birds | Owls | Total Pounds Per Household |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ambler | 1997 | 31.89 | 24.29 | 0.00 | 0.32 | 0.00 | 0.47 | 56.97 | 7.38 | 0.00 | 64.35 |
| Buckland | 1996 | 33.50 | 20.56 | 0.51 | 0.56 | 0.00 | 1.54 | 56.67 | 3.14 | 0.00 | 59.81 |
| Deering | 1997 | 14.72 | 8.51 | 0.89 | 0.59 | 0.00 | 1.02 | 25.73 | 2.55 | 0.00 | 28.29 |
| Kiana | 1996 | 11.57 | 8.72 | 0.00 | 0.00 | 0.00 | 0.00 | 20.29 | 2.28 | 0.00 | 22.57 |
| Kivalina | 1996 | 13.50 | 2.22 | 0.00 | 0.00 | 0.00 | 0.00 | 15.73 | 0.61 | 0.00 | 16.33 |
| Kobuk | 1996 | 50.13 | 25.37 | 1.08 | 0.90 | 0.00 | 0.00 | 77.48 | 3.32 | 0.00 | 80.80 |
| Kotzebue | 1997 | 19.90 | 7.94 | 0.27 | 1.34 | 0.00 | 0.01 | 29.46 | 7.25 | 0.00 | 36.71 |
| Noatak | 1997 | 12.59 | 5.75 | 0.36 | 0.00 | 0.00 | 0.00 | 18.69 | 3.88 | 0.15 | 22.72 |
| Noorvik | 1996 | 30.42 | 38.60 | 0.92 | 3.04 | 0.00 | 2.87 | 75.85 | 9.16 | 0.00 | 85.01 |
| Selawik | 1997 | 17.52 | 18.59 | 0.11 | 0.00 | 0.00 | 0.00 | 36.22 | 6.60 | 0.00 | 42.82 |
| Shungnak | 1993 | 35.34 | 34.83 | 0.00 | 1.12 | 0.00 | 0.00 | 71.29 | 7.66 | 0.06 | 79.00 |
| **TOTAL** | | **21.31** | **13.59** | **0.30** | **0.99** | **0.00** | **0.36** | **36.54** | **6.11** | **0.01** | **42.66** |

## Table 8. Bird Harvests by Species in Multiple Years, Kiana and Selawik

| | KIANA | | SELAWIK | |
|---|---|---|---|---|
| | 1993 | 1996 | 1993 | 1997 |
| | Number of Birds Harvested | Number of Birds Harvested | Number of Birds Harvested | Number of Birds Harvested |
| **GEESE, SWANS, AND CRANES** | | | | |
| White-fronted Geese | 45 | 57 | 244 | 138 |
| Snow Geese | 19 | 12 | - | 3 |
| Emperor Geese | 11 | - | 28 | - |
| Canada Geese | 238 | 214 | 403 | 687 |
| Brant | 8 | 50 | 46 | 76 |
| Sandhill Crane | - | - | - | 3 |
| Tundra Swan | 2 | - | 10 | - |
| **Total** | **323** | **333** | **731** | **907** |
| **DUCKS** | | | | |
| Northern Pintail | 191 | 168 | 181 | 352 |
| American Wigeon | 214 | 18 | 97 | 151 |
| Mallard | 64 | 192 | 95 | 456 |
| Northern Shoveler | - | 4 | 81 | 375 |
| Greater Scaup | - | 12 | 28 | - |
| Lesser Scaup | - | 4 | - | 5 |
| Unknown Scaup | - | - | 10 | - |
| Canvasback | - | - | - | - |
| Green-winged Teal | - | 14 | 48 | 58 |
| Common Merganser | - | - | 10 | - |
| Red-breasted Merganser | - | - | - | - |
| Bufflehead | - | - | - | - |
| Harlequin | - | - | - | - |
| Oldsquaw | 40 | 69 | 22 | - |
| Common Goldeneye | - | - | - | - |
| Black Scoter | 57 | 10 | 77 | 330 |
| Surf Scoter | 8 | - | 48 | 40 |
| White-winged Scoter | - | 50 | - | - |
| Common Eider | - | - | - | - |
| King Eider | - | - | - | - |
| Spectacled Eider | - | - | - | - |
| Steller's Eider | - | - | - | - |
| Unknown Ducks | 13 | - | 2 | 50 |
| **Total** | **587** | **541** | **699** | **1,817** |

## Table 8. (con't) Bird Harvests by Species in Multiple Years, Kiana and Selawik

| | KIANA | | SELAWIK | |
|---|---|---|---|---|
| | 1993 | 1996 | 1993 | 1997 |
| | Number of Birds Harvested | Number of Birds Harvested | Number of Birds Harvested | Number of Birds Harvested |
| **LOONS, SEABIRDS, AND SHOREBIRDS** | | | | |
| Common Loon | 2 | - | - | - |
| Pacific (Arctic) Loon | - | - | - | - |
| Red-throated Loon | - | - | - | - |
| Yellow-billed Loon | - | - | - | - |
| Unknown Loon | - | - | - | - |
| Common Murre | - | - | - | - |
| Thick-billed Murre | - | - | - | - |
| Unknown Murre | - | - | - | - |
| Black Guillemot | - | - | - | - |
| Sabine's Gull | - | - | - | - |
| Mew Gull | - | - | - | - |
| Glaucous Gull | - | - | - | - |
| Unknown Gull | - | - | - | - |
| Arctic Tern | - | - | - | - |
| Auklets | - | - | - | - |
| Puffins | - | - | - | - |
| Cormorants | - | - | - | - |
| Unknown Seabirds | - | - | - | - |
| Plover | - | - | - | - |
| Common Snipe | - | - | - | - |
| **Total** | **2** | **0** | **0** | **0** |
| **UPLAND GAME BIRDS AND OWLS** | | | | |
| Willow Ptarmigan | 166 | 184 | 331 | 997 |
| Rock Ptarmigan | - | - | - | - |
| Spruce Grouse | 2 | 87 | - | - |
| Snowy Owl | - | - | - | - |
| **Total** | **168** | **271** | **331** | **997** |
| **Regional Total** | **1,080** | **1,145** | **1,761** | **3,721** |

Note: Totals might differ slightly from Table 2 due to rounding error. Dashes (-) indicate no harvest.

**Fig. 6. Migratory Bird Harvests by Season, Northwest Arctic Region**

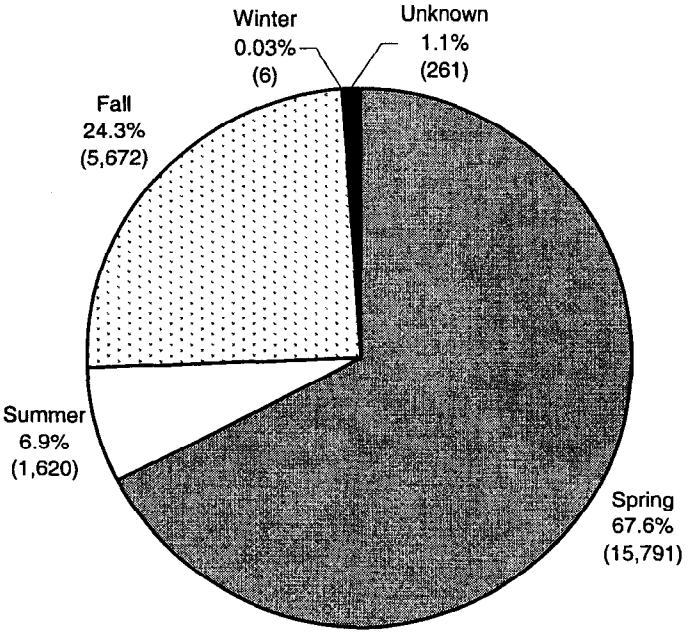



**Fig. 7. Geese Harvests by Season, Northwest Arctic Region**

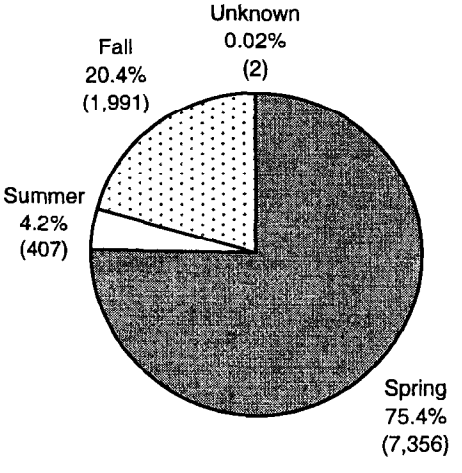



**Fig. 8. Duck Harvests by Season, Northwest Arctic Region**

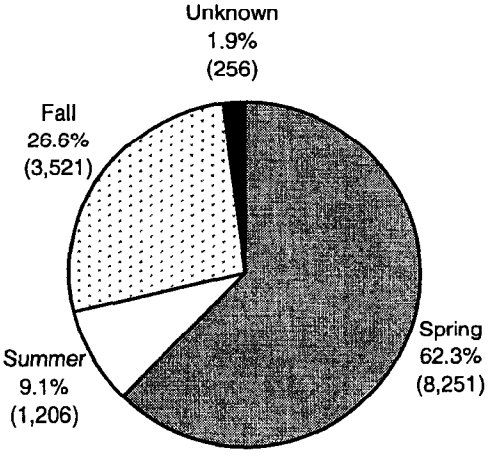


**Fig. 9. Crane Harvests by Season, Northwest Arctic Region**

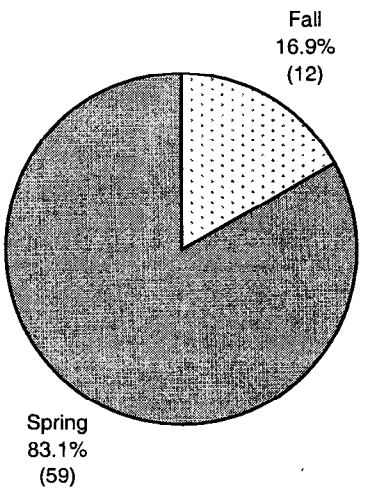



**Fig. 10. Swan Harvests by Season, Northwest Arctic Region**

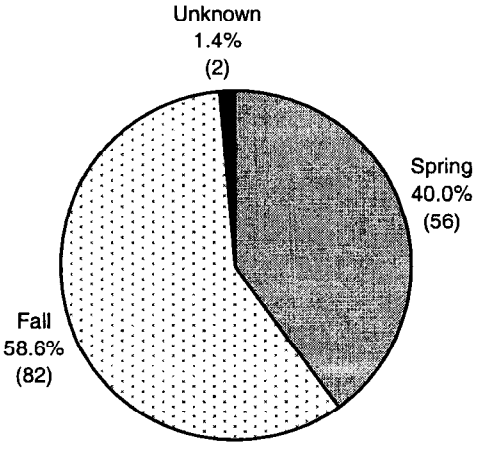



**Fig. 11. Seabird and Loon Harvests by Season, Northwest Arctic Region**

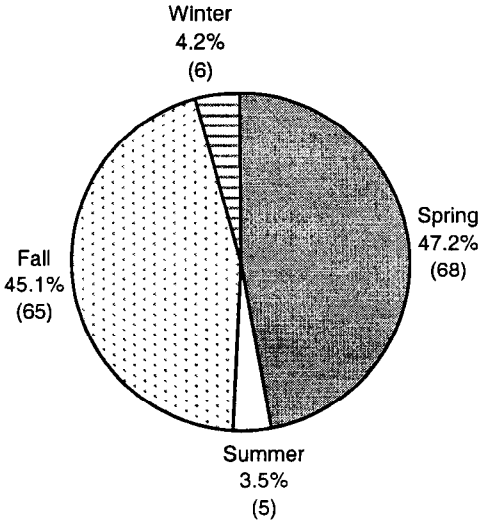
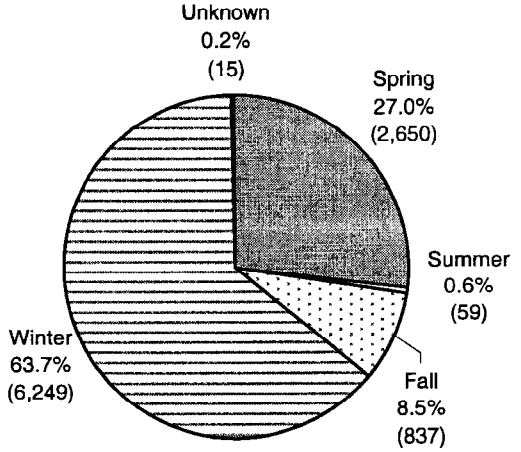
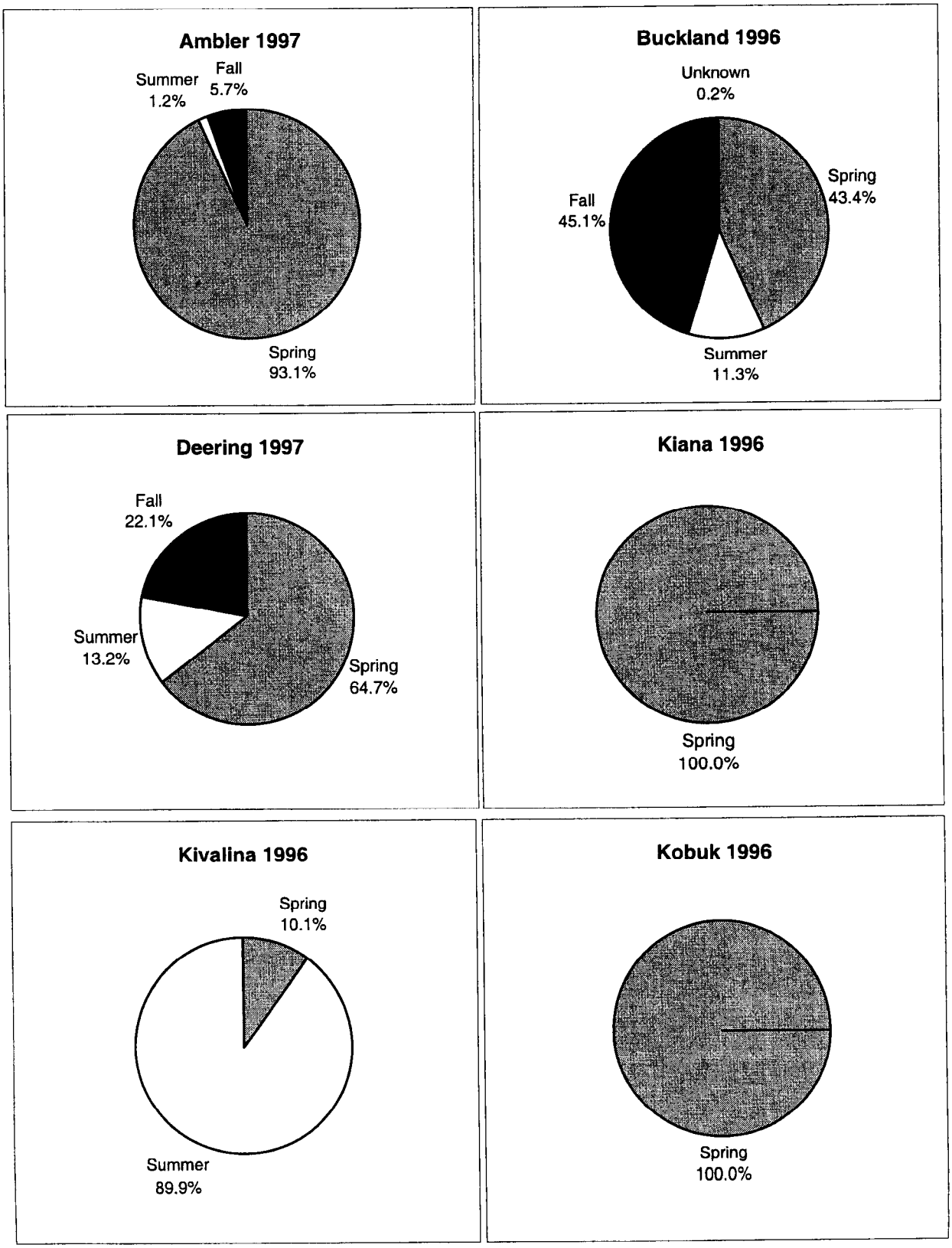


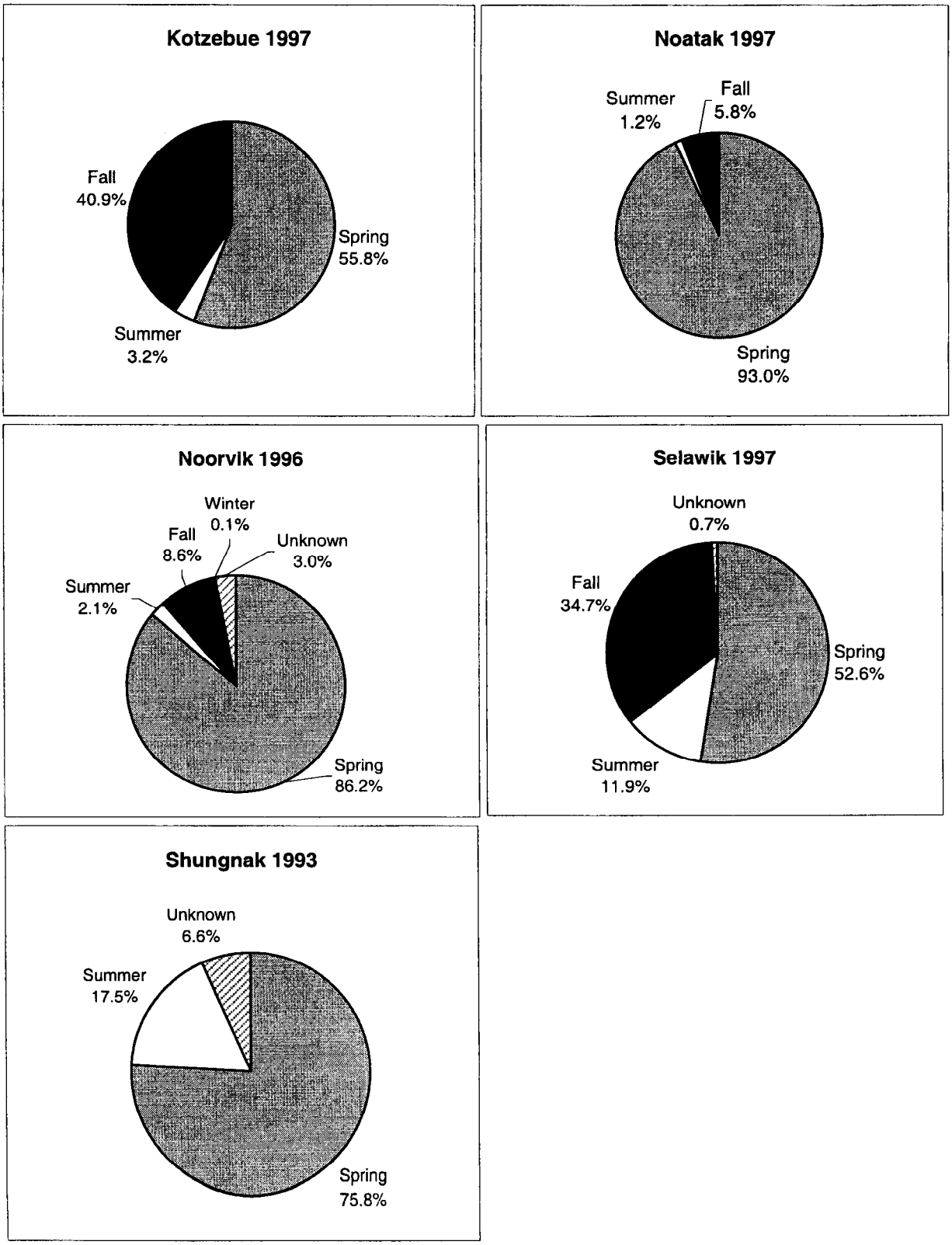

**Fig. 12. Upland Game Bird and Owl Harvests by Season, Northwest Arctic Region**



## Fig. 13. Migratory Bird Harvests by Season by Community, Northwest Arctic Region



## Fig. 13. (con't) Migratory Bird Harvests by Season by Community, Northwest Arctic Region



## Table 9. Bird Harvests by Season by Species, Northwest Arctic Region (Number of Birds)

| | Spring | Summer | Fall | Winter | Unknown |
|---|---|---|---|---|---|
| **GEESE, SWANS, AND CRANES** | | | | | |
| White-fronted Geese | 2,107 | 24 | 739 | - | - |
| Snow Geese | 159 | - | 4 | - | - |
| Emperor Geese | 117 | - | - | - | - |
| Canada Geese | 4,418 | 165 | 1,225 | - | 2 |
| Brant | 494 | 219 | 23 | - | - |
| Unknown Geese | 60 | - | - | - | - |
| Sandhill Crane | 59 | - | 12 | - | - |
| Tundra Swan | 56 | - | 82 | - | 2 |
| **DUCKS** | | | | | |
| Northern Pintail | 2,045 | 328 | 708 | - | - |
| American Wigeon | 470 | 40 | 783 | - | 9 |
| Mallard | 2,417 | 260 | 828 | - | 13 |
| Northern Shoveler | 280 | 132 | 276 | - | 11 |
| Greater Scaup | 206 | 45 | 56 | - | - |
| Lesser Scaup | 177 | 28 | 38 | - | 44 |
| Canvasback | 88 | 6 | 85 | - | - |
| Green-winged Teal | 147 | 20 | 150 | - | 2 |
| Common Merganser | - | - | 38 | - | - |
| Red-breasted Merganser | - | - | 2 | - | - |
| Bufflehead | - | - | - | - | - |
| Harlequin | 4 | - | - | - | - |
| Oldsquaw | 743 | 98 | 12 | - | 17 |
| Common Goldeneye | 44 | - | - | - | - |
| Black Scoter | 678 | 141 | 126 | - | 154 |
| Surf Scoter | 188 | 66 | 25 | - | 7 |
| White-winged Scoter | 69 | 4 | 28 | - | - |
| Common Eider | 75 | 19 | 10 | - | - |
| King Eider | 18 | 8 | - | - | - |
| Spectacled Eider | - | - | - | - | - |
| Steller's Eider | - | - | 115 | - | - |
| Unknown Eider | 6 | - | - | - | - |
| Unknown Ducks | 601 | 13 | 237 | - | - |

## Table 9. (con't) Bird Harvests by Season by Species, Northwest Arctic Region (Number of Birds)

| | Spring | Summer | Fall | Winter | Unknown |
|---|---|---|---|---|---|
| **LOONS, SEABIRDS, AND SHOREBIRDS** | | | | | |
| Common Loon | 48 | 4 | 13 | 6 | - |
| Pacific (Arctic) Loon | 2 | - | - | - | - |
| Red-throated Loon | 6 | - | - | - | - |
| Yellow-billed Loon | - | - | - | - | - |
| Unknown Loon | 1 | - | - | - | - |
| Common Murre | 11 | - | 12 | - | - |
| Thick-billed Murre | - | 1 | - | - | - |
| Black Guillemot | - | - | - | - | - |
| Sabine's Gull | - | - | - | - | - |
| Mew Gull | - | - | 40 | - | - |
| Glaucous Gull | - | - | - | - | - |
| Arctic Tern | - | - | - | - | - |
| Auklets | - | - | - | - | - |
| Puffins | - | - | - | - | - |
| Cormorants | - | - | - | - | - |
| Plover | - | - | - | - | - |
| Common Snipe | - | - | - | - | - |
| **UPLAND GAME BIRDS AND OWLS** | | | | | |
| Willow Ptarmigan | 2,531 | 51 | 681 | 5,996 | 15 |
| Rock Ptarmigan | 101 | - | 18 | 238 | - |
| Spruce Grouse | 13 | 8 | 137 | 14 | - |
| Snowy Owl | 5 | - | - | 1 | - |

Note: Dashes (-) indicate no harvest.

## Table 10. Migratory Bird Harvests by Season by Community, Northwest Arctic Region (Number of Birds)

| Community | Study Year | Geese | | | | | | Ducks | | | | | | Crane | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Spring | Summer | Fall | Winter | Season Unknown | Total | Spring | Summer | Fall | Winter | Season Unknown | Total | Spring | Summer | Fall | Winter | Season Unknown | Total |
| Ambler | 1997 | 667 | 0 | 20 | 0 | 0 | 687 | 1,021 | 22 | 84 | 0 | 0 | 1,127 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 97% | - | 3% | - | - | 100% | 91% | 2% | 7% | - | - | 100% | | | | | | |
| Buckland | 1996 | 443 | 8 | 288 | 0 | 0 | 739 | 360 | 200 | 496 | 0 | 4 | 1,060 | 0 | 0 | 6 | 0 | 0 | 6 |
| | | 60% | 1% | 39% | - | - | 100% | 34% | 19% | 47% | - | 0% | 100% | - | - | 100% | - | - | 100% |
| Deering | 1997 | 175 | 0 | 21 | 0 | 0 | 196 | 122 | 64 | 68 | 0 | 0 | 254 | 5 | 0 | 1 | 0 | 0 | 6 |
| | | 89% | - | 11% | - | - | 100% | 48% | 25% | 27% | - | - | 100% | 83% | - | 17% | - | - | 100% |
| Kiana | 1996 | 333 | 0 | 0 | 0 | 0 | 333 | 541 | 0 | 0 | 0 | 0 | 541 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 100% | - | - | - | - | 100% | 100% | - | - | - | - | 100% | | | | | | |
| Kivalina | 1996 | 25 | 303 | 0 | 0 | 0 | 328 | 13 | 36 | 0 | 0 | 0 | 49 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 8% | 92% | - | - | - | 100% | 27% | 73% | - | - | - | 100% | | | | | | |
| Kobuk | 1996 | 327 | 0 | 0 | 0 | 0 | 327 | 377 | 0 | 0 | 0 | 0 | 377 | 4 | 0 | 0 | 0 | 0 | 4 |
| | | 100% | - | - | - | - | 100% | 100% | - | - | - | - | 100% | 100% | - | - | - | - | 100% |
| Kotzebue | 1997 | 2,701 | 68 | 1,554 | 0 | 0 | 4,323 | 1,743 | 190 | 1,667 | 0 | 0 | 3,600 | 26 | 0 | 5 | 0 | 0 | 31 |
| | | 62% | 2% | 36% | - | - | 100% | 48% | 5% | 46% | - | - | 100% | 84% | - | 16% | - | - | 100% |
| Noatak | 1997 | 311 | 0 | 0 | 0 | 0 | 311 | 294 | 8 | 38 | 0 | 0 | 340 | 5 | 0 | 0 | 0 | 0 | 5 |
| | | 100% | - | - | - | - | 100% | 86% | 2% | 11% | - | - | 100% | 100% | - | - | - | - | 100% |
| Noorvik | 1996 | 1,046 | 2 | 53 | 0 | 0 | 1,101 | 2,358 | 80 | 277 | 0 | 119 | 2,834 | 16 | 0 | 0 | 0 | 0 | 16 |
| | | 95% | - | 5% | - | - | 100% | 83% | 3% | 10% | - | 4% | 100% | 100% | - | - | - | - | 100% |
| Selawik | 1997 | 825 | 23 | 55 | 0 | 0 | 903 | 604 | 302 | 891 | 0 | 20 | 1,817 | 3 | 0 | 0 | 0 | 0 | 3 |
| | | 91% | 3% | 6% | - | - | 100% | 33% | 17% | 49% | - | 1% | 100% | 100% | - | - | - | - | 100% |
| Shungnak | 1993 | 503 | 3 | 0 | 0 | 2 | 508 | 818 | 304 | 0 | 0 | 113 | 1,235 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 99% | 1% | - | - | 0% | 100% | 66% | 25% | - | - | 9% | 100% | | | | | | |
| **TOTAL** | | **7,356** | **407** | **1,991** | **0** | **2** | **9,756** | **8,251** | **1,206** | **3,521** | **0** | **256** | **13,234** | **59** | **0** | **12** | **0** | **0** | **71** |
| | | **75%** | **4%** | **20%** | **-** | **0%** | **100%** | **62%** | **9%** | **27%** | **-** | **2%** | **100%** | **83%** | **-** | **17%** | **-** | **-** | **100%** |

## Table 10. (con't) Migratory Bird Harvests by Season by Community, Northwest Arctic Region (Number of Birds)

| Community | Study Year | Swans | | | | | | Shorebirds | | | | | | Seabirds and Loons | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Spring | Summer | Fall | Winter | Season Unknown | Total | Spring | Summer | Fall | Winter | Season Unknown | Total | Spring | Summer | Fall | Winter | Season Unknown | Total |
| Ambler | 1997 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 7 |
| | | 100% | - | - | - | - | 100% | | | | | | | 100% | - | - | - | - | 100% |
| Buckland | 1996 | 0 | 0 | 4 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 43 | 0 | 0 | 43 |
| | | - | - | 100% | - | - | 100% | | | | | | | - | - | 100% | - | - | 100% |
| Deering | 1997 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 14 | 0 | 0 | 25 |
| | | 50% | - | 50% | - | - | 100% | | | | | | | 44% | - | 56% | - | - | 100% |
| Kiana | 1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kivalina | 1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kobuk | 1996 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 100% | - | - | - | - | 100% | | | | | | | | | | | | |
| Kotzebue | 1997 | 22 | 0 | 69 | 0 | 0 | 91 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| | | 24% | - | 76% | - | - | 100% | | | | | | | 50% | 50% | - | - | - | 100% |
| Noatak | 1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Noorvik | 1996 | 23 | 0 | 8 | 0 | 2 | 33 | 0 | 0 | 0 | 0 | 0 | 0 | 49 | 4 | 8 | 6 | 0 | 67 |
| | | 70% | - | 24% | - | 6% | 100% | | | | | | | 73% | 6% | 12% | 9% | - | 100% |
| Selawik | 1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Shungnak | 1993 | 6 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 100% | - | - | - | - | 100% | | | | | | | | | | | | |
| **TOTAL** | | **56** | **0** | **82** | **0** | **2** | **140** | **0** | **0** | **0** | **0** | **0** | **0** | **68** | **5** | **65** | **6** | **0** | **144** |
| | | **40%** | **-** | **59%** | **-** | **1%** | **100%** | | | | | | | **47%** | **3%** | **45%** | **4%** | **-** | **100%** |

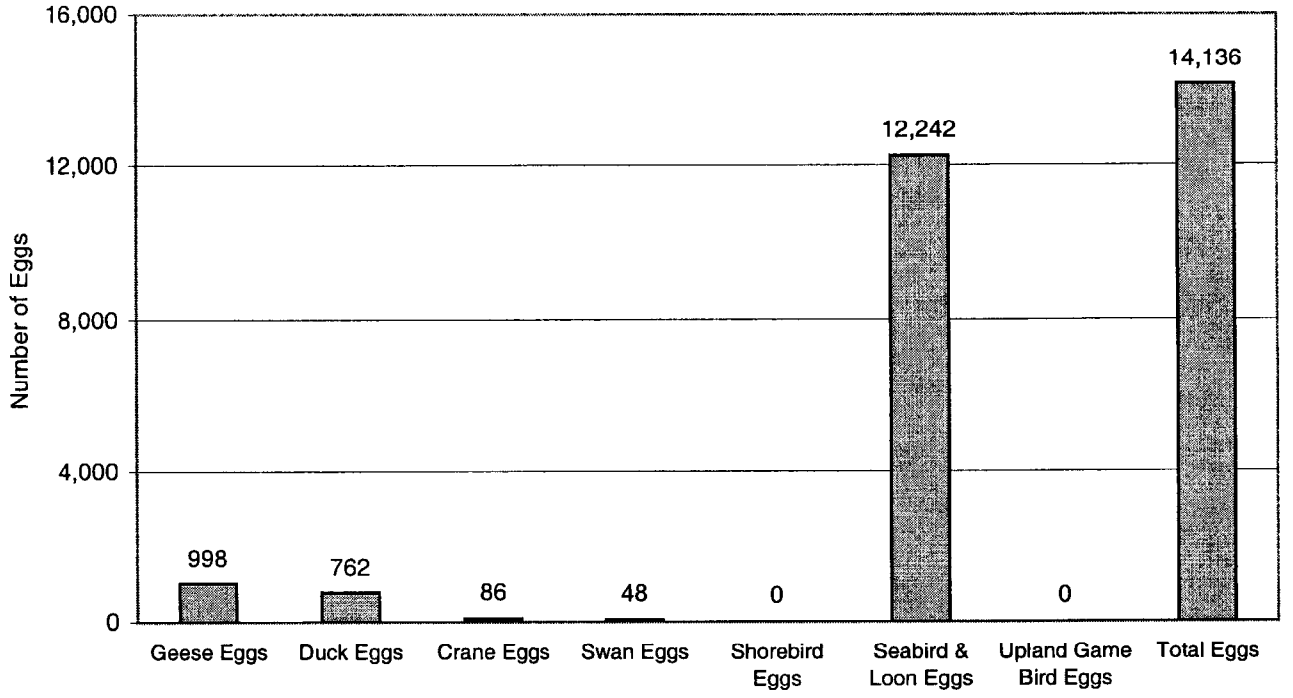
Note: Totals might differ slightly from Table 2 due to rounding error.

## Table 11. Egg Harvests by Community, Northwest Arctic Region

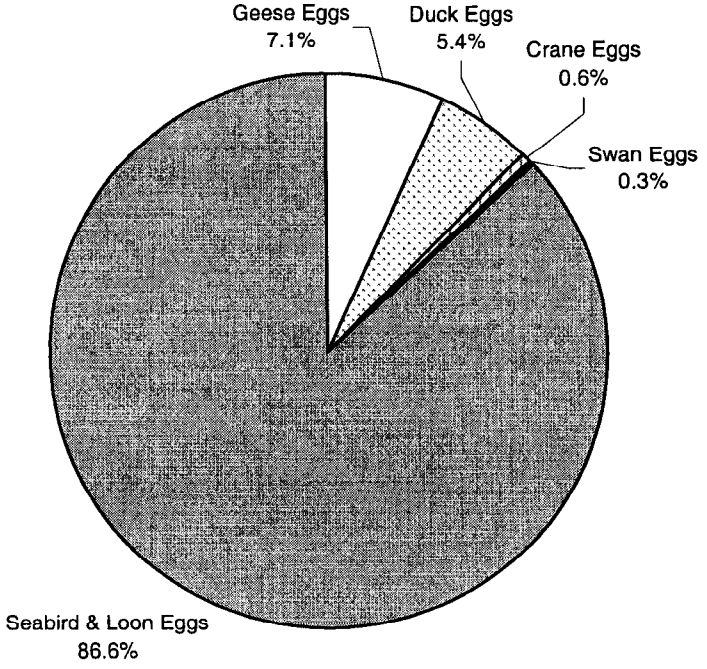
| Community | Study Year | Geese Eggs | Duck Eggs | Crane Eggs | Swan Eggs | Shorebird Eggs | Seabird & Loon Eggs | Upland Game Bird Eggs | Unknown Eggs | Total Eggs |
|---|---|---|---|---|---|---|---|---|---|---|
| Ambler | 1997 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Buckland | 1996 | 484 | 316 | 81 | 26 | 0 | 2,462 | 0 | 0 | 3,369 |
| Deering | 1997 | 0 | 7 | 0 | 0 | 0 | 1,486 | 0 | 0 | 1,493 |
| Kiana | 1993 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kivalina | 1996 | 0 | 0 | 0 | 0 | 0 | 1,413 | 0 | 0 | 1,413 |
| Kobuk | 1996 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kotzebue | 1997 | 261 | 366 | 5 | 22 | 0 | 6,183 | 0 | 0 | 6,837 |
| Noatak | 1997 | 240 | 0 | 0 | 0 | 0 | 329 | 0 | 0 | 569 |
| Noorvik | 1996 | 0 | 23 | 0 | 0 | 0 | 369 | 0 | 0 | 392 |
| Selawik | 1993 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 1997 | 13 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 63 |
| Shungnak | 1993 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **TOTAL[1]** | | **998** | **762** | **86** | **48** | **0** | **12,242** | **0** | **0** | **14,136** |
| | | 7.1% | 5.4% | 0.6% | 0.3% | 0.0% | 86.6% | 0.0% | 0.0% | 100.0% |

[1] Totals include only most recent year in communities where more than one year of data is available.

## Fig. 14. Subsistence Egg Harvests, Northwest Arctic Region




## Fig. 15. Composition of Egg Harvests, Northwest Arctic Region



## Table 12. Egg Harvests by Species, Northwest Arctic Region

| | EGGS | | |
|---|---|---|---|
| | Number | Percent of Category | Percent of All Eggs |
| **GEESE, SWANS, AND CRANES** | | | |
| White-fronted Geese | 20 | 1.8% | 0.1% |
| Snow Geese | - | - | - |
| Emperor Geese | - | - | - |
| Canada Geese | 890 | 78.6% | 6.3% |
| Brant | 7 | 0.6% | 0.0% |
| Unknown Geese | 81 | 7.2% | 0.6% |
| Sandhill Crane | 86 | 7.6% | 0.6% |
| Tundra Swan | 48 | 4.2% | 0.3% |
| **Total** | **1,132** | **100.0%** | **8.0%** |
| **DUCKS** | | | |
| Northern Pintail | 387 | 50.8% | 2.7% |
| American Wigeon | 24 | 3.1% | 0.2% |
| Mallard | 170 | 22.3% | 1.2% |
| Northern Shoveler | - | - | - |
| Greater Scaup | 23 | 3.0% | 0.2% |
| Lesser Scaup | - | - | - |
| Canvasback | - | - | - |
| Green-winged Teal | - | - | - |
| Common Merganser | - | - | - |
| Red-breasted Merganser | - | - | - |
| Bufflehead | - | - | - |
| Harlequin | - | - | - |
| Oldsquaw | - | - | - |
| Common Goldeneye | - | - | - |
| Black Scoter | - | - | - |
| Surf Scoter | - | - | - |
| White-winged Scoter | - | - | - |
| Common Eider | 29 | 3.8% | 0.2% |
| King Eider | 122 | 16.0% | 0.9% |
| Spectacled Eider | - | - | - |
| Steller's Eider | - | - | - |
| Unknown Eider | - | - | - |
| Unknown Ducks | 7 | 0.9% | 0.0% |
| **Total** | **762** | **100.0%** | **5.4%** |

## Table 12. (con't) Egg Harvests by Species, Northwest Arctic Region

| | EGGS | | |
|---|---|---|---|
| | Number | Percent of Category | Percent of All Eggs |
| **LOONS, SEABIRDS, AND SHOREBIRDS** | | | |
| Common Loon | 8 | 0.1% | 0.1% |
| Pacific (Arctic) Loon | 8 | 0.1% | 0.1% |
| Red-throated Loon | - | - | - |
| Yellow-billed Loon | - | - | - |
| Unknown Loon | - | - | - |
| Common Murre | 2,990 | 24.4% | 21.2% |
| Thick-billed Murre | - | - | - |
| Unknown Murre | 1,151 | 9.4% | 8.1% |
| Black Guillemot | 81 | 0.7% | 0.6% |
| Sabine's Gull | 52 | 0.4% | 0.4% |
| Mew Gull | 2,034 | 16.6% | 14.4% |
| Glaucous Gull | 1,283 | 10.5% | 9.1% |
| Unknown Gull | 4,563 | 37.3% | 32.3% |
| Arctic Tern | 8 | 0.1% | 0.1% |
| Auklets | - | - | - |
| Puffins | - | - | - |
| Cormorants | 4 | 0.0% | 0.0% |
| Unknown Seabirds | 61 | 0.5% | 0.4% |
| Plover | - | - | - |
| Common Snipe | - | - | - |
| **Total** | **12,243** | **100.0%** | **86.6%** |
| **UPLAND GAME BIRDS AND OWLS** | | | |
| Willow Ptarmigan | - | - | - |
| Rock Ptarmigan | - | - | - |
| Spruce Grouse | - | - | - |
| Snowy Owl | - | - | - |
| **Total** | - | - | - |
| **Regional Total** | **14,136** | | **100.0%** |

Note: Dashes (-) indicate no harvest.

## Table 13. Egg Harvests Per Household, Northwest Arctic Region (Number of Eggs)

| Community | Study Year | Geese Eggs | Duck Eggs | Crane Eggs | Swan Eggs | Shorebird Eggs | Seabird & Loon Eggs | Upland Game Bird Eggs | Total Eggs Per Household |
|---|---|---|---|---|---|---|---|---|---|
| Ambler | 1997 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Buckland | 1996 | 5.98 | 3.90 | 1.00 | 0.32 | 0.00 | 30.40 | 0.00 | 41.60 |
| Deering | 1997 | 0.00 | 0.14 | 0.00 | 0.00 | 0.00 | 29.72 | 0.00 | 29.84 |
| Kiana | 1996 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Kivalina | 1996 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 20.48 | 0.00 | 20.48 |
| Kobuk | 1996 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Kotzebue | 1997 | 0.34 | 0.48 | 0.01 | 0.03 | 0.00 | 8.10 | 0.00 | 8.96 |
| Noatak | 1997 | 2.47 | 0.00 | 0.00 | 0.00 | 0.00 | 3.39 | 0.00 | 5.87 |
| Noorvik | 1996 | 0.00 | 0.19 | 0.00 | 0.00 | 0.00 | 3.05 | 0.00 | 3.24 |
| Selawik | 1997 | 0.09 | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.42 |
| Shungnak | 1993 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **TOTAL** | | **0.63** | **0.48** | **0.05** | **0.03** | **0.00** | **7.67** | **0.00** | **8.86** |

## Table 14. Per Capita Egg Harvests, Northwest Arctic Region
## (Number of Eggs Per Person)

| Community | Study Year | Geese Eggs | Duck Eggs | Crane Eggs | Swan Eggs | Shorebird Eggs | Seabird & Loon Eggs | Upland Game Bird Eggs | Total Eggs Per Person |
|---|---|---|---|---|---|---|---|---|---|
| Ambler | 1997 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Buckland | 1996 | 1.28 | 0.83 | 0.21 | 0.07 | 0.00 | 6.50 | 0.00 | 8.90 |
| Deering | 1997 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 9.41 | 0.00 | 9.45 |
| Kiana | 1996 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Kivalina | 1996 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.98 | 0.00 | 3.98 |
| Kobuk | 1996 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Kotzebue | 1997 | 0.08 | 0.11 | 0.00 | 0.01 | 0.00 | 1.86 | 0.00 | 2.06 |
| Noatak | 1997 | 0.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.81 | 0.00 | 1.40 |
| Noorvik | 1996 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.60 | 0.00 | 0.63 |
| Selawik | 1997 | 0.02 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 |
| Shungnak | 1993 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **TOTAL** | | **0.14** | **0.11** | **0.01** | **0.01** | **0.00** | **1.74** | **0.00** | **2.01** |

## Table 15. Estimated Number of Persons Hunting Birds During the Study Year, Northwest Arctic Region

| Community | Study Year | Number of Hunting Households | Number of Persons Hunting Birds Per Hunting Household | Number of Bird Hunters |
|---|---|---|---|---|
| Ambler | 1997 | 59 | 1.59 | 95 |
| Buckland | 1996 | 59 | 1.66 | 97 |
| Deering | 1997 | 28 | 1.14 | 32 |
| Kiana | 1996 | 36 | 1.94 | 71 |
| Kivalina | 1996 | 38 | 1.28 | 48 |
| Kobuk | 1996 | 15 | 1.67 | 25 |
| Kotzebue | 1997 | 475 | 1.51 | 716 |
| Noatak | 1997 | 59 | 1.39 | 82 |
| Noorvik | 1996 | 94 | 1.91 | 180 |
| Selawik | 1997 | 111 | 1.68 | 186 |
| Shungnak | 1993 | 41 | 1.22 | 50 |
| **TOTAL** | | **1,015** | **1.56** | **1,581** |

## Table 16. Households That Used, Hunted, Harvested, Gave, or Received Birds During Survey Year, Northwest Arctic Region

| Community | Survey Year | Percent of Households | | | | |
|---|---|---|---|---|---|---|
| | | Using Birds | Hunting Birds | Harvesting Birds | Giving Birds | Receiving Birds |
| Ambler | 1997 | 82.9 | 77.1 | 74.3 | 45.7 | 40.0 |
| Buckland | 1996 | 85.0 | 72.5 | 67.5 | 50.0 | 40.0 |
| Deering | 1997 | 84.2 | 55.3 | 55.3 | 44.7 | 55.3 |
| Kiana | 1996 | 69.8 | 34.0 | 32.1 | 17.0 | 50.9 |
| Kivalina | 1996 | 81.8 | 54.6 | 54.6 | 39.4 | 39.4 |
| Kobuk | 1996 | 92.0 | 60.0 | 56.0 | 44.0 | 48.0 |
| Kotzebue | 1997 | 72.7 | 62.3 | 60.2 | 42.5 | 34.4 |
| Noatak | 1997 | 73.7 | 60.5 | 60.5 | 36.8 | 47.4 |
| Noorvik | 1996 | 94.9 | 78.0 | 78.0 | 40.7 | 61.0 |
| Selawik | 1997 | 90.0 | 73.3 | 73.3 | 75.0 | 55.0 |
| Shungnak | 1993 | 86.0 | 66.0 | 50.0 | 64.0 | 48.0 |
| **TOTAL** | | **78.5** | **63.6** | **61.2** | **44.6** | **42.4** |

## Table 17. Percent of Households Harvesting Migratory Birds by Season, Northwest Arctic Region

| Community | Study Year | Percent of Households Harvesting Migratory Birds in: | | | | |
|---|---|---|---|---|---|---|
| | | Spring | Summer | Fall | Winter | Unknown Season |
| Ambler | 1997 | 74.3 | 2.9 | 5.7 | 0.0 | 0.0 |
| Buckland | 1996 | 55.0 | 15.0 | 30.0 | 0.0 | 2.5 |
| Deering | 1997 | 47.4 | 10.5 | 13.2 | 0.0 | 0.0 |
| Kiana | 1996 | 32.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Kivalina | 1996 | 9.1 | 48.5 | 0.0 | 0.0 | 0.0 |
| Kobuk | 1996 | 56.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Kotzebue | 1997 | 47.6 | 5.1 | 26.8 | 0.0 | 0.0 |
| Noatak | 1997 | 50.0 | 5.3 | 2.6 | 0.0 | 0.0 |
| Noorvik | 1996 | 78.0 | 10.2 | 15.3 | 1.7 | 5.1 |
| Selawik | 1997 | 58.3 | 20.0 | 33.3 | 0.0 | 1.7 |
| Shungnak | 1993 | 48.0 | 18.0 | 0.0 | 0.0 | 14.0 |
| **TOTAL** | | **50.2** | **9.4** | **19.5** | **0.1** | **1.2** |

## Table 18. Bird Harvests by Species by Community, Northwest Arctic Region (Number of Birds)

| | Ambler 1997 | Buckland 1996 | Deering 1997 | Kiana 1996 | Kivalina 1996 | Kobuk 1996 | Kotzebue 1997 | Noatak 1997 | Noorvik 1996 | Selawik 1997 | Shungnak 1993 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GEESE, SWANS, AND CRANES** | | | | | | | | | | | |
| White-fronted Geese | 174 | 205 | 28 | 57 | 29 | 145 | 1421 | 82 | 394 | 138 | 198 |
| Snow Geese | 11 | 22 | 1 | 12 | 0 | 0 | 85 | 15 | 10 | 3 | 4 |
| Emperor Geese | 22 | 0 | 0 | 0 | 0 | 0 | 95 | 0 | 0 | 0 | 0 |
| Canada Geese | 462 | 500 | 137 | 214 | 105 | 182 | 2,462 | 214 | 543 | 687 | 306 |
| Brant | 18 | 12 | 30 | 50 | 194 | 0 | 200 | 0 | 154 | 76 | 0 |
| Unknown Geese | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 0 | 0 | 0 | 0 |
| Sandhill Crane | 0 | 6 | 7 | 0 | 0 | 4 | 31 | 5 | 16 | 3 | 0 |
| Tundra Swan | 2 | 4 | 3 | 0 | 0 | 2 | 91 | 0 | 33 | 0 | 6 |
| **DUCKS** | | | | | | | | | | | |
| Northern Pintail | 222 | 407 | 133 | 168 | 0 | 128 | 868 | 107 | 466 | 352 | 228 |
| American Wigeon | 62 | 93 | 7 | 18 | 0 | 20 | 490 | 13 | 291 | 151 | 154 |
| Mallard | 389 | 239 | 70 | 192 | 8 | 123 | 997 | 100 | 833 | 456 | 113 |
| Northern Shoveler | 33 | 67 | 33 | 4 | 0 | 10 | 54 | 31 | 70 | 375 | 24 |
| Greater Scaup | 0 | 10 | 0 | 12 | 0 | 0 | 46 | 0 | 113 | 0 | 126 |
| Lesser Scaup | 18 | 38 | 0 | 4 | 0 | 10 | 0 | 0 | 111 | 5 | 100 |
| Canvasback | 0 | 0 | 0 | 0 | 0 | 15 | 91 | 0 | 31 | 0 | 42 |
| Green-winged Teal | 11 | 71 | 3 | 14 | 0 | 0 | 87 | 26 | 31 | 58 | 20 |
| Common Merganser | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 | 0 | 0 | 0 |
| Red-breasted Merganser | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bufflehead | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Harlequin | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| Oldsquaw | 176 | 4 | 0 | 69 | 0 | 39 | 7 | 0 | 425 | 0 | 151 |
| Common Goldeneye | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 40 |
| Black Scoter | 68 | 103 | 0 | 10 | 0 | 32 | 21 | 26 | 357 | 330 | 152 |
| Surf Scoter | 88 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 82 | 40 | 76 |
| White-winged Scoter | 0 | 18 | 4 | 50 | 0 | 0 | 6 | 0 | 12 | 0 | 11 |
| Common Eider | 0 | 8 | 7 | 0 | 21 | 0 | 68 | 0 | 0 | 0 | 0 |
| King Eider | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 8 | 0 | 0 |
| Spectacled Eider | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Steller's Eider | 0 | 0 | 0 | 0 | 0 | 0 | 115 | 0 | 0 | 0 | 0 |
| Unknown Eider | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 | 0 | 0 |
| Unknown Ducks | 57 | 0 | 0 | 0 | 0 | 0 | 743 | 0 | 0 | 50 | 0 |

## Table 18. (con't) Bird Harvests by Species by Community, Northwest Arctic Region (Number of Birds)

| | Ambler 1997 | Buckland 1996 | Deering 1997 | Kiana 1996 | Kivalina 1996 | Kobuk 1996 | Kotzebue 1997 | Noatak 1997 | Noorvik 1996 | Selawik 1997 | Shungnak 1993 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **LOONS, SEABIRDS, AND SHOREBIRDS** | | | | | | | | | | | |
| Common Loon | 7 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | 59 | 0 | 0 |
| Pacific (Arctic) Loon | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| Red-throated Loon | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 0 |
| Yellow-billed Loon | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unknown Loon | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Common Murre | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Thick-billed Murre | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Black Guillemot | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sabine's Gull | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mew Gull | 0 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Glaucous Gull | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arctic Tern | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Auklets | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Puffins | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cormorants | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Plover | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Common Snipe | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **UPLAND GAME BIRDS AND OWLS** | | | | | | | | | | | |
| Willow Ptarmigan | 535 | 182 | 128 | 184 | 42 | 83 | 5,288 | 329 | 1,085 | 997 | 421 |
| Rock Ptarmigan | 0 | 69 | 0 | 0 | 0 | 0 | 240 | 38 | 10 | 0 | 0 |
| Spruce Grouse | 48 | 4 | 0 | 87 | 0 | 0 | 2 | 13 | 18 | 0 | 0 |
| Snowy Owl | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 1 |

## Table 19. Egg Harvests by Species by Community, Northwest Arctic Region (Number of Eggs)

| | Ambler 1997 | Buckland 1996 | Deering 1997 | Kiana 1996 | Kivalina 1996 | Kobuk 1996 | Kotzebue 1997 | Noatak 1997 | Noorvik 1996 | Selawik 1997 | Shungnak 1993 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **GEESE, SWANS, AND CRANES** | | | | | | | | | | | |
| White-fronted Geese Eggs | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Snow Geese Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Emperor Geese Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Canada Geese Eggs | 0 | 403 | 0 | 0 | 0 | 0 | 234 | 240 | 0 | 13 | 0 |
| Brant Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 0 | 0 |
| Unknown Geese Eggs | 0 | 61 | 0 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 |
| Sandhill Crane Eggs | 0 | 81 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 |
| Tundra Swan Eggs | 0 | 26 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 |
| **DUCKS** | | | | | | | | | | | |
| Northern Pintail Eggs | 0 | 128 | 0 | 0 | 0 | 0 | 229 | 0 | 0 | 30 | 0 |
| American Wigeon Eggs | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Mallard Eggs | 0 | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 20 | 0 |
| Northern Shoveler Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Greater Scaup Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 | 0 | 0 |
| Lesser Scaup Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Canvasback Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Green-winged Teal Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Common Merganser Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Red-breasted Merganser Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bufflehead Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Harlequin Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Oldsquaw Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Common Goldeneye Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Black Scoter Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Surf Scoter Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| White-winged Scoter Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Common Eider Eggs | 0 | 14 | 0 | 0 | 0 | 0 | 15 | 0 | 0 | 0 | 0 |
| King Eider Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 122 | 0 | 0 | 0 | 0 |
| Spectacled Eider Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Steller's Eider Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unknown Duck Eggs | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

## Table 19. (con't) Egg Harvests by Species by Community, Northwest Arctic Region (Number of Eggs)

| | Ambler 1997 | Buckland 1996 | Deering 1997 | Kiana 1996 | Kivalina 1996 | Kobuk 1996 | Kotzebue 1997 | Noatak 1997 | Noorvik 1996 | Selawik 1997 | Shungnak 1993 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **LOONS, SEABIRDS, AND SHOREBIRDS** | | | | | | | | | | | |
| Common Loon Eggs | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pacific (Arctic) Loon Eggs | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Red-throated Loon Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Yellow-billed Loon Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Common Murre Eggs | 0 | 526 | 746 | 0 | 1,286 | 0 | 329 | 0 | 103 | 0 | 0 |
| Thick-billed Murre Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unknown Murre Eggs | 0 | 1,033 | 0 | 0 | 0 | 0 | 15 | 0 | 103 | 0 | 0 |
| Black Guillemot Eggs | 0 | 81 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sabine's Gull Eggs | 0 | 40 | 0 | 0 | 0 | 0 | 12 | 0 | 0 | 0 | 0 |
| Mew Gull Eggs | 0 | 591 | 0 | 0 | 0 | 0 | 1,310 | 133 | 0 | 0 | 0 |
| Glaucous Gull Eggs | 0 | 40 | 676 | 0 | 0 | 0 | 339 | 64 | 164 | 0 | 0 |
| Unknown Gull Eggs | 0 | 61 | 63 | 0 | 128 | 0 | 4,178 | 133 | 0 | 0 | 0 |
| Arctic Tern Eggs | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Auklet Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Puffin Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Cormorant Eggs | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unknown Seabird Eggs | 0 | 61 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Plover Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Common Snipe Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **UPLAND GAME BIRDS AND OWLS** | | | | | | | | | | | |
| Willow Ptarmigan Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rock Ptarmigan Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Spruce Grouse Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Snowy Owl Eggs | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

# APPENDIX 1

- Sample Survey Instrument
- Sample Page from Color Bird Identification Guide
- Key Respondent Interview Guide

# 1997 MIGRATORY BIRD HOUSEHOLD HARVEST SURVEY
# NORTHWEST ALASKA

How many people are in your household? _____.
Are any household members Alaska Natives? YES:_____. NO:_____.
How many household members hunted birds in the past year (Nov 1996 - Oct 1997)?_____.
How many household members gathered eggs in the past year (Nov 1996 - Oct 1997)?_____.

| | |
|---|---|
| INTERVIEWER: | |
| DATE: | |
| CODER: | |
| REVIEWER: | |

| During the 12 months Nov. 1996 thru Oct. 1997, did your household: | Yes | No |
|---|---|---|
| 1. Use birds? | | |
| 2. Receive birds from other households? | | |
| 3. Give birds to other households? | | |
| **During the 12 months Nov. 1996 thru Oct. 1997, did your household:** | | |
| 1. Use eggs? | | |
| 2. Receive eggs from other households? | | |
| 3. Give eggs to other households? | | |

| *We are interested in your household's harvest of birds and eggs for the time period November 1996 through October 1997.* | | How many Birds did your household HARVEST in the past 12 months? **TOTAL BIRDS HARVESTED** | How many each season? | | | | | How many Eggs did your household take in the past 12 months? **TOTAL EGGS TAKEN** | RESCODE |
|---|---|---|---|---|---|---|---|---|---|
| | | | WINTER BIRDS (Nov, Dec, Jan, Feb) | SPRING BIRDS (March, Apr, May) | SUMMER BIRDS (June, July) | FALL BIRDS (Aug, Sept, Oct) | SEASON UNKNOWN | | |
| 1 | White-fronted Geese | | | | | | | | 410410000 |
| 2 | Emperor Geese | | | | | | | | 410406000 |
| 3 | Cackling Canada Geese | | | | | | | | 410404040 |
| 4 | Lesser Canada Geese | | | | | | | | 410404080 |
| | Canada Geese Unknown | | | | | | | | 410404990 |
| 5 | Snow Geese | | | | | | | | 410408000 |
| 6 | Black Brant | | | | | | | | 410402000 |
| | Unknown Geese | | | | | | | | 410499000 |
| 7 | Northern Pintail | | | | | | | | 410220000 |
| 8 | American Wigeon | | | | | | | | 410236020 |
| 9 | Mallard | | | | | | | | 410214000 |
| 10 | Northern Shoveler | | | | | | | | 410230000 |
| 11 | Greater Scaup | | | | | | | | 410226020 |
| 12 | Lesser Scaup | | | | | | | | 410226040 |
| | Unknown Scaup | | | | | | | | 410226990 |
| 13 | Canvasback | | | | | | | | 410204000 |
| 14 | Green-winged Teal | | | | | | | | 410232060 |
| 15 | Common Merganser | | | | | | | | 410216020 |
| 16 | Red-breasted Merganser | | | | | | | | 410216040 |
| | Unknown Merganser | | | | | | | | 410216990 |
| 17 | Bufflehead | | | | | | | | 410202000 |
| 18 | Harlequin | | | | | | | | 410212000 |
| 19 | Oldsquaw | | | | | | | | 410218000 |
| 20 | Common Goldeneye | | | | | | | | 410210040 |
| 21 | Black Scoter | | | | | | | | 410228020 |
| 22 | Surf Scoter | | | | | | | | 410228040 |
| 23 | White-winged Scoter | | | | | | | | 410228060 |
| | Unknown Scoter | | | | | | | | 410228990 |
| 24 | Common Elder | | | | | | | | 410206020 |
| 25 | King Eider | | | | | | | | 410206040 |
| 26 | Spectacled Eider | | | | | | | | 410206060 |
| 27 | Steller's Eider | | | | | | | | 410206080 |
| | Unknown Eider | | | | | | | | 410206990 |
| | Ducks Unknown | | | | | | | | 410299000 |

Manillaq Association
Box 256 Kotzebue, AK 99752

COMMUNITY:_____ (____) HH ID:_____

# 1997 MIGRATORY BIRD HOUSEHOLD HARVEST SURVEY
# NORTHWEST ALASKA

| | | How many Birds did your household HARVEST in the past 12 months? **TOTAL BIRDS HARVESTED** | How many each season? | | | | | How many Eggs did your household take in the past 12 months? **TOTAL EGGS TAKEN** | RESCODE |
|---|---|---|---|---|---|---|---|---|---|
| | | | WINTER BIRDS (Nov, Dec, Jan, Feb) | SPRING BIRDS (March, Apr, May) | SUMMER BIRDS (June, July) | FALL BIRDS (Aug, Sept, Oct) | SEASON UNKNOWN | | |
| 28 | Common Loon | | | | | | | | 411216040 |
| 29 | Pacific (Arctic) Loon | | | | | | | | 411216020 |
| 30 | Red-throated Loon | | | | | | | | 411216060 |
| 31 | Yellow-billed Loon | | | | | | | | 411216080 |
| | Unknown Loon | | | | | | | | 411216990 |
| 32 | Common Murre | | | | | | | | 411218020 |
| 33 | Thick-billed Murre | | | | | | | | 411218040 |
| | Unknown Murre | | | | | | | | 411218990 |
| 34 | Black Guillemot | | | | | | | | 411210020 |
| 35 | Sabine's Gull | | | | | | | | 411212100 |
| 36 | Mew Gull | | | | | | | | 411212080 |
| 37 | Glaucous Gull | | | | | | | | 411212020 |
| | Unknown Gull | | | | | | | | 411212990 |
| 38 | Arctic Tern | | | | | | | | 411226040 |
| 39 | Auklets | | | | | | | | 411202990 |
| 40 | Puffins | | | | | | | | 411222990 |
| | Other Seabirds | | | | | | | | 411299000 |
| 41 | Plover | | | | | | | | 411006990 |
| 42 | Common Snipe | | | | | | | | 411002000 |
| | Other Shorebirds | | | | | | | | 411099000 |
| 43 | Rock Ptarmigan | | | | | | | | 421804020 |
| 44 | Willow Ptarmigan | | | | | | | | 421804040 |
| 45 | Grouse | | | | | | | | 421802000 |
| 46 | Snowy Owl | | | | | | | | 422002000 |
| 47 | Sandhill Crane | | | | | | | | 410802000 |
| 48 | Tundra Swan | | | | | | | | 410604000 |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

During the past 12 months, did your household harvest less, more, or about the same amount of birds as in the past?

NEVER HARVEST:____(0) LESS:____(1) SAME:____(2) MORE:____(3) If less or more, why?

_____

_____

_____

Do you have any other comments? _____

_____

_____

_____

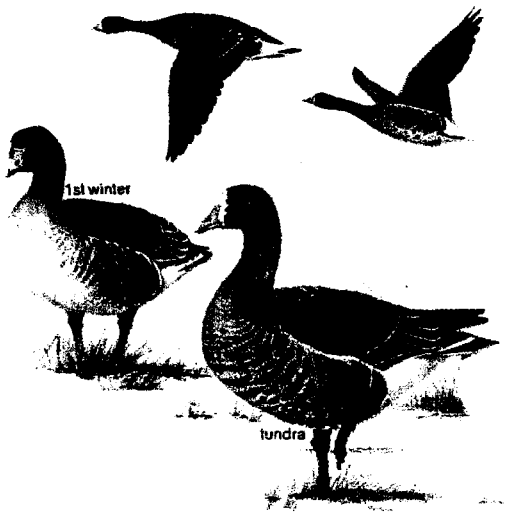
_____

_____

Maniilaq Association
Box 256 Kotzebue, AK 99752

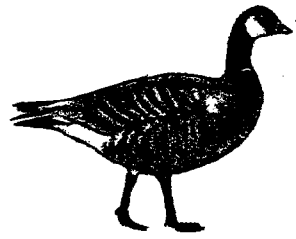
COMMUNITY:_____ (____) HH ID:_____

## 1. WHITE-FRONTED GOOSE
*(Anser albifrons)*



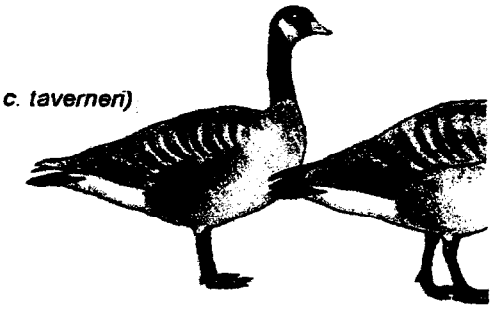

## 2. EMPEROR GOOSE
*(Chen canigica)*

## 3. CACKLING CANADA GOOSE
*(Branta canadensis minima)*

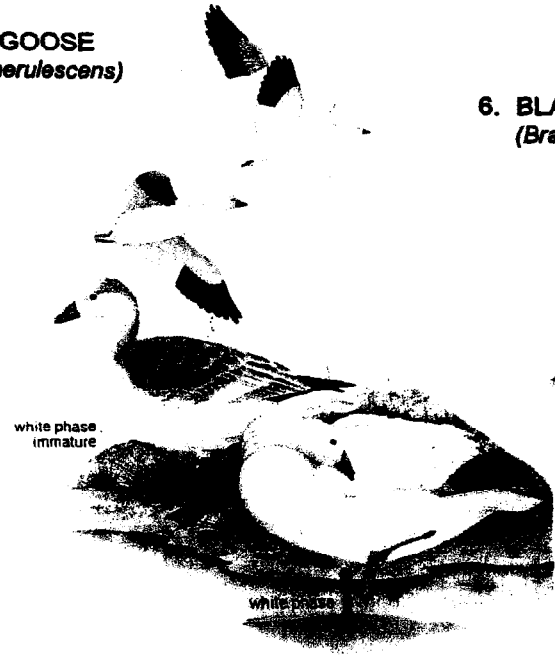


## 4. LESSER CANADA GOOSE
*(Branta canadensis)*

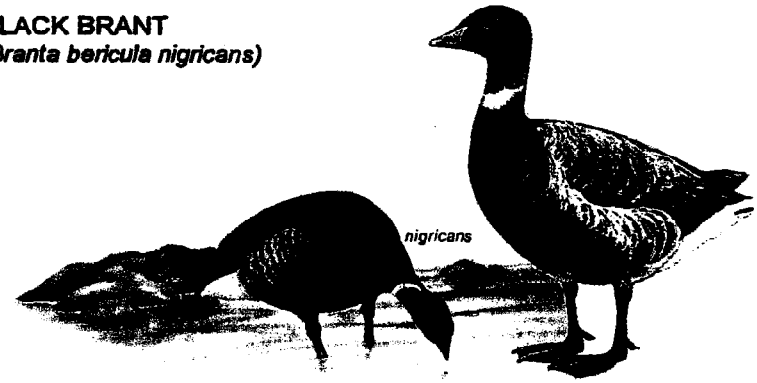
*(B.c. taverneri)*



## 5. SNOW GOOSE
*(Chen caerulescens)*



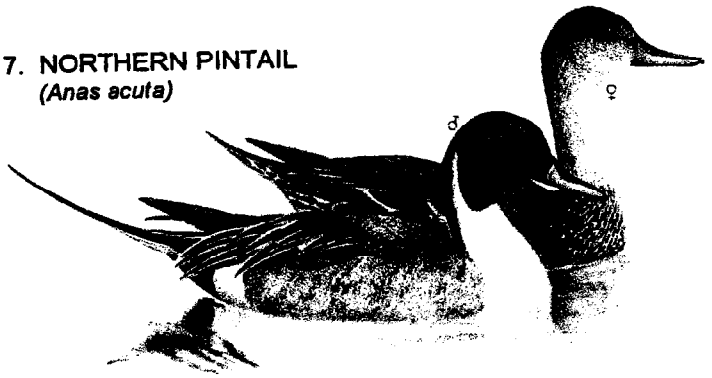

## 6. BLACK BRANT
*(Branta bericula nigricans)*



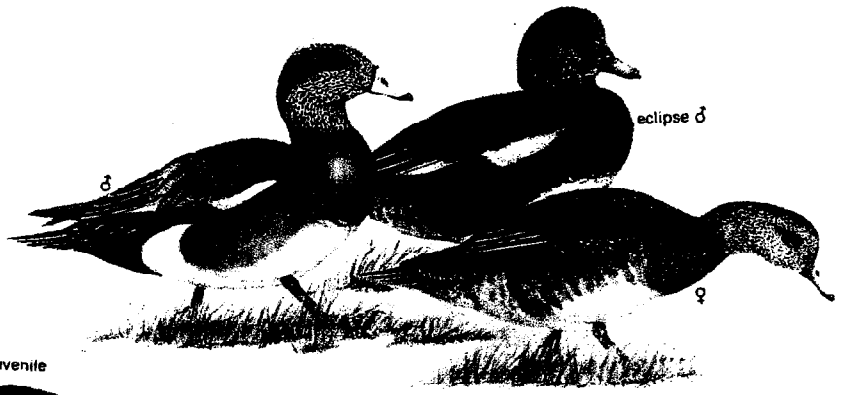



Illustrations from Field Guide to the Birds of North America 2nd Edition 1987

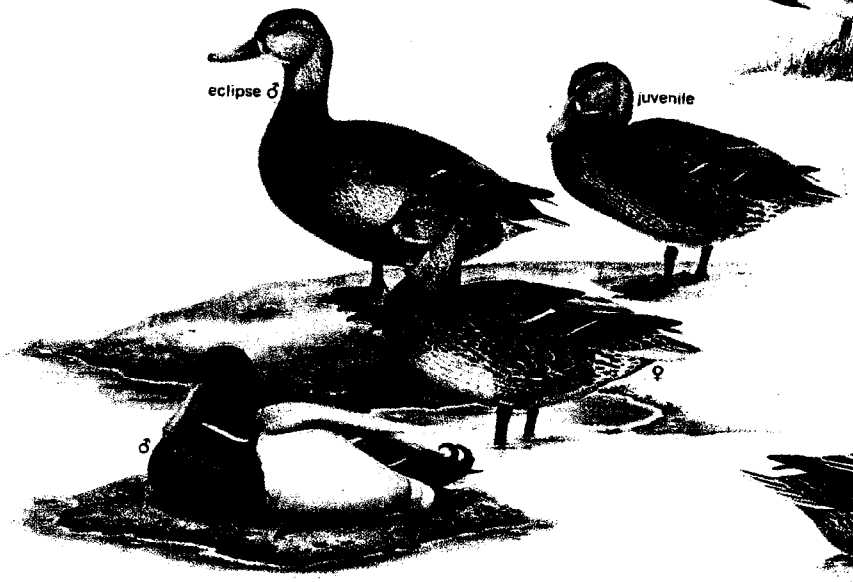
## 7. NORTHERN PINTAIL
*(Anas acuta)*




## 8. AMERICAN WIGEON
*(Anas americana)*

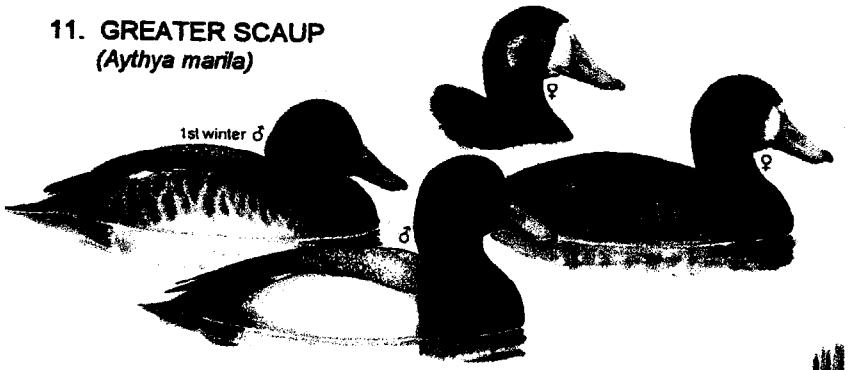



## 9. MALLARD
*(Anas platyrhynchose)*

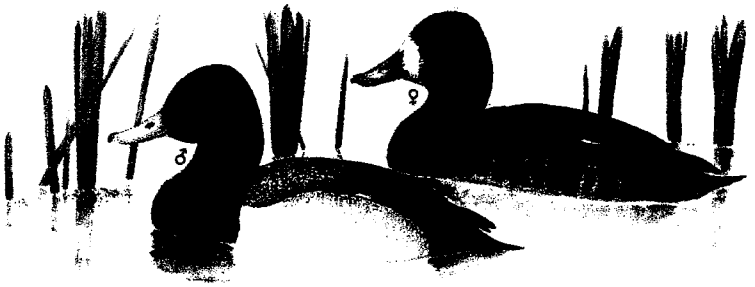



## 10. NORTHERN SHOVELER
*(Anas clypeta)*

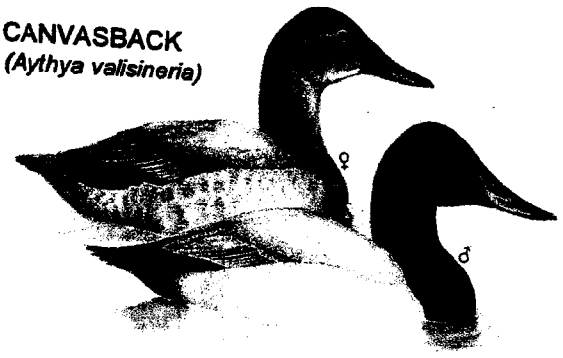
## 11. GREATER SCAUP
*(Aythya marila)*




## 12. LESSER SCAUP
*(Aythya affinis)*




## 13. CANVASBACK
*(Aythya valisineria)*






Illustrations from Field Guide to the Birds of North America 2nd Edition 1987

## Topics for Key Respondent Interviews
## (Examples)

We are trying to learn about three types of birds: eiders, emperors, and brant. Two kinds of eiders may be decreasing in numbers for unknown reasons -- spectacled eider and Steller's eiders. Two other kinds of eiders seem to be alright -- king eiders and common eiders. Emperor and brant may be less now than in the past for unknown reasons.

Topics About Eider, Emperors, and Brant

1. Can you talk about eiders -- what is known about them?

    What are their names in Inupiat (or Yup'ik).

    Are they seen in this area?

    What times of the year are they seen? What are their movements?

    Do they nest in the area?

    Have you noticed a change in their numbers? Why has any change occurred?

    What do they eat?

    Anything else about them?

2. Can you talk about emperors -- what is known about them?

3. Can you talk about brant -- what is known about them?

We are also trying to learn about bird hunting by subsistence hunters.

Topics About Bird Hunting

1. What are the traditional seasons for hunting birds in the area?

    When does hunting begin and stop during spring?

    Is there any hunting during the summer for certain birds?

    When does hunting begin and stop during fall?

2. Which birds are abundant in the area? Are there any types of birds that are preferred by hunters? Why? Are there any birds which are not hunted?

3. What are the traditional rules guiding bird hunting?

# APPENDIX 2: COMMUNITY REPORTS

# BIRD HUNTING IN AMBLER, ALASKA

November 1997 through October 1998

Results of a cooperative project by Maniilaq Association
and the Division of Subsistence, Alaska Department of Fish and Game,
funded by the U.S. Fish and Wildlife Service
April 1999

**Introduction**

Birds are important to families in northwest Alaska. They are an important part of the culture and traditional way of life of Alaska Natives. Birds and bird eggs are eaten for food, and feathers are used in hand-crafted items. This report presents information on bird hunting and harvests in Ambler for a 12-month period (November 1997-October 1998). The information results from a cooperative project between Maniilaq Association and the Alaska Department of Fish and Game.

**The Project**

Several groups worked together on the project to gather information on birds in Ambler. The Ambler Traditional Council approved the project by resolution. A survey of households was done by a local researcher hired and supervised by Maniilaq Association. The project was designed by the Division of Subsistence, Alaska Department of Fish and Game, who also put the information into tables and into this report. Money for the project came from the U.S. Fish and Wildlife Service. Preliminary results were reviewed by Maniilaq and the Division of Subsistence, ADF&G.

**How the Information Was Collected**

A survey was used to gather information on bird harvests. Surveys were done in 35 households randomly selected from a total of 77 households (45 percent) in Ambler. Also, two bird hunters from Ambler were interviewed about bird ecology and traditional uses of birds. Surveys were done in November 1998 in Ambler. On the survey, people were asked about bird hunting during the 12-month period, November 1997 through October 1998. Participation in the survey was voluntary. To protect confidentiality, no person's name is used in any reports of the information.

**Findings**

Households in Ambler reported the following things about their use of birds and eggs in the 12-month period:

- Most households (83 percent) used birds (see Fig. 4).
- About three-fourths of households hunted birds (see Fig. 4).
- Sharing of birds was common. Almost one-half (46 percent) of households gave birds to other families, and 40 percent of households received birds from others (see Fig. 4).

- At least 19 kinds of birds were caught—white-fronted geese, emperor geese, Canada geese, snow geese, brant, northern pintail, American wigeon, mallard, northern shoveler, lesser scaup, green-winged teal, harlequin, oldsquaw, black scoter, surf scoter, common loon, willow ptarmigan, spruce grouse, and tundra swan (see Table 1).

- An estimated 2,405 birds were caught by households in Ambler during the 12-month study period.

- The five kinds of birds caught in greatest numbers were willow ptarmigan (535), Canada geese (462 birds), mallard (389 birds), northern pintail (222 birds), and oldsquaw (176 birds) (see Table 1). These five kinds accounted for 74 percent of all the birds caught by Ambler hunters.

- Although birds were caught in every season of the year, spring was the time when most birds were harvested (see Fig. 3).

- According to knowledgeable hunters, most of the Canada geese caught by Ambler residents are the subspecies called lesser Canada geese. One of the local names for these Canada geese is "cacklers." Classifying Canada geese harvests into subspecies ("lesser" or "cackling") proved difficult because of the different naming systems and the close resemblance of Canada geese subspecies in colored bird guides.

- Information from interviewed hunters about birds in the Ambler area is attached as an appendix.

**Computerized Data Files**

This information is available as computer files at Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752 (907-442-3311) or the Division of Subsistence, Alaska Department of Fish and Game, Box 3-2000, Juneau, Alaska 99802 (907-465-4147). Information requests can be made from either group.

**Acknowledgments**

A sincere thank-you is given to all households and hunters who generously agreed to be surveyed or interviewed for this project. A special thanks is given to Enoch Shiedt of Maniilaq Association, who obtained tribal council approvals, hired community assistants, and supervised data collection; Christina Cleveland of Ambler, who conducted the household surveys; Susan Georgette of the Division of Subsistence, ADF&G, who trained surveyors, interviewed hunters, and wrote the report; and the Ambler Traditional Council, who supported the project.

# Table 1. AMBLER
# Bird Harvests, November 1997-October 1998[1]

| Bird Species | | Total Harvests | | Bird Harvest By Season[2] | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Birds | Eggs | Winter | Spring | Summer | Fall | Unknown |
| **Geese** | White-fronted Geese | 174 | | | 174 | | | |
| | Emperor Geese | 22 | | | 22 | | | |
| | Canada Geese | 462 | | | 442 | | 20 | |
| | Snow Geese | 11 | | | 11 | | | |
| | Brant | 18 | | | 18 | | | |
| **Ducks** | Northern Pintail | 222 | | | 202 | | 20 | |
| | American Wigeon | 62 | | | 62 | | | |
| | Mallard | 389 | | | 370 | | 20 | |
| | Northern Shoveler | 33 | | | 33 | | | |
| | Greater Scaup | | | | | | | |
| | Lesser Scaup | 18 | | | 18 | | | |
| | Canvasback | | | | | | | |
| | Green-winged Teal | 11 | | | 11 | | | |
| | Common Merganser | | | | | | | |
| | Red-breasted Merganser | | | | | | | |
| | Bufflehead | | | | | | | |
| | Harlequin | 2 | | | 2 | | | |
| | Oldsquaw | 176 | | | 154 | 22 | | |
| | Common Goldeneye | | | | | | | |
| | Black Scoter | 68 | | | 68 | | | |
| | Surf Scoter | 88 | | | 88 | | | |
| | White-winged Scoter | | | | | | | |
| | Common Eider | | | | | | | |
| | King Eider | | | | | | | |
| | Spectacled Eider | | | | | | | |
| | Steller's Eider | | | | | | | |
| | Unknown Ducks | 57 | | | 13 | | 44 | |
| **Loons** | Common Loon | 7 | | | 7 | | | |
| | Pacific (Arctic) Loon | | | | | | | |
| | Red-throated Loon | | | | | | | |
| | Yellow-billed Loon | | | | | | | |
| **Seabirds** | Common Murre | | | | | | | |
| | Thick-billed Murre | | | | | | | |
| | Black Guillemot | | | | | | | |
| | Sabine's Gull | | | | | | | |
| | Mew Gull | | | | | | | |
| | Glaucous Gull | | | | | | | |
| | Arctic Tern | | | | | | | |
| | Auklets | | | | | | | |
| | Puffins | | | | | | | |
| | Other Seabirds | | | | | | | |
| **Shorebirds** | Plover | | | | | | | |
| | Common Snipe | | | | | | | |
| **Game Birds** | Willow Ptarmigan | 535 | | 493 | 33 | | 9 | |
| | Rock Ptarmigan | | | | | | | |
| | Spruce Grouse | 48 | | | | 4 | 44 | |
| **Snowy Owl** | | | | | | | | |
| **Sandhill Crane** | | | | | | | | |
| **Tundra Swan** | | 2 | | | 2 | | | |
| **TOTAL** | | **2,405** | | **493** | **1,729** | **26** | **156** | |

[1] Based on a random sample of 35 of 77 households, expanded to all households. Data were collected by a local researcher on contract with Maniilaq Association, through cooperative agreements between ADFG, Division of Subsistence, Maniilaq Association, and US Fish & Wildlife Service. Research was approved by resolution of the Ambler Traditional Council. Project funded by USFWS.

[2] Winter=Nov, Dec, Jan, Feb; Spring=Mar, Apr, May; Summer=Jun, Jul; Fall=Aug, Sep, Oct.

SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1998.

# AMBLER
# Bird Harvest Patterns
# November 1997 - October 1998

Fig. 1 **Ambler Bird Harvests, November 1997 - October 1998, by Bird Type**

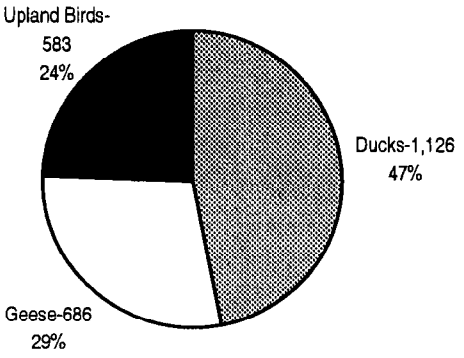



Fig. 2 **Ambler Egg Harvests November 1997- October 1998 by Bird Type**

No egg harvest recorded during the study period by sampled households.

Fig. 3 **Ambler Bird Harvests, November 1997 - October 1998, by Season**

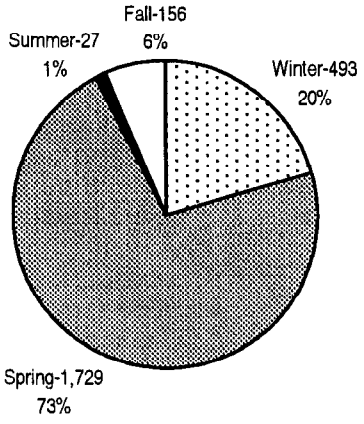
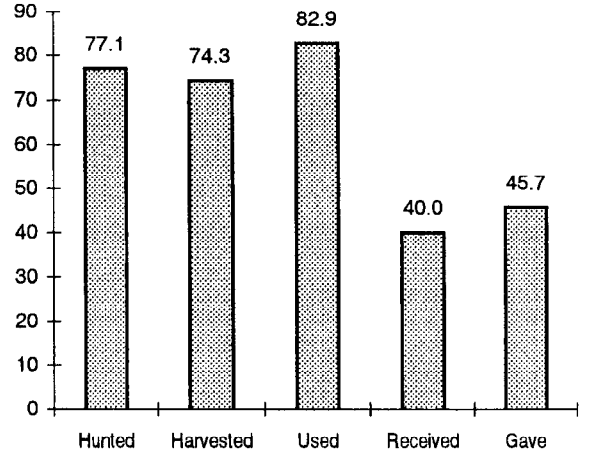



Fig. 4 **Percentage of Ambler Households that Hunted, Harvested, Used, Received, or Gave Birds, 1997-98**




SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1998.

# Migratory Bird Key Respondent Notes, 1998
# Ambler

AMBLER. WHITE-FRONTED GEESE. CANADA GEESE. BRANT. NESTING.
White-fronts and Canada geese are around here. No brants around here. Those smaller geese are on the coast. The white-fronts and Canadas stay all summer in the lakes.
CODE[11-25-110998

AMBLER. EGGS. NESTING.
We don't pick eggs around here. The birds are too far away in the lakes to reach the nests.
CODE[11-25-110998

AMBLER. GEESE. DUCKS. POPULATION LEVELS.
There were hardly any geese this fall across from Ambler. Not like before. Coming up from Kotzebue this fall it was the first time we saw hardly any ducks. I don't know why. It was the first time we ever see that.
CODE[11-25-110998

AMBLER. PTARMIGAN. POPULATIONS LEVELS.
There are lots of ptarmigan.
CODE[11-25-110998

AMBLER. HARVEST LEVELS. GEESE. DUCKS. DISEASE.
I've never noticed any changes in the health of birds or in sick birds. We used to catch more birds when we were younger.
CODE[11-25-110998

AMBLER. WHITE-FRONTED GEESE. CANADA GEESE. SEASONALITY.
Most bird hunting takes place in the spring when they first come. The white-fronts come first, then the Canada geese come second.
CODE[11-25-110998

AMBLER. TUNDRA SWAN.
Not many swans around here. Mostly on the ocean side.
CODE[11-25-110998

AMBLER. DUCKS. MOLTING. HUNTING.
We never did get much molting ducks. Molting ducks are out in the lakes where we don't go in summer. Years and years ago I once walked a long ways to get molting ducks.
CODE[11-25-110998

AMBLER. PINTAIL. WIGEON. MALLARD. SHOVELER. SCAUP. TEAL.
We have pintails and wigeons around here. Some mallards, some spoonbills [shovelers], some scaup. A few teals.
CODE[11-25-110998

AMBLER. BLACK SCOTER. SEASONALITY. NESTING. LOON.
Black scoters we only see in the springtime. They go somewhere to nest. Loons we only see in the springtime. They go somewhere to nest.
CODE[11-25-110998

AMBLER. SEASONALITY. HUNTING METHODS. GEESE. DUCKS.
Most bird hunting takes place in springtime. We hunt with a snowmachine, boat, canoe. We slide the canoe across the ice. In the springtime, the water is high and we can get to the lakes. Some people hunt birds in falltime, but not as much as in spring.
CODE[11-100-111098

AMBLER. CANADA GEESE. WHITE-FRONTED GEESE. NESTING. SNOW GEESE. BRANT.
We get Canada geese and white-fronts. They stay around all summer. Canada geese nest on lakes or islands. Snow geese and black brant come through but they go somewhere else to nest.
CODE[11-100-111098

AMBLER. PINTAIL. MALLARD. WIGEON. SHOVELER. CANVASBACK. GREEN-WINGED TEAL.
We have lots of pintails, mallards, and wigeons. We have some shovelers and canvasbacks. We see a lot of green-winged teal but we try not to get them unless it's a mistake.
CODE[11-100-111098

AMBLER. OLDSQUAW. SEASONALITY. CUSTOMARY RULES.
We get oldsquaws. They come later in spring than the others. People really go for them. I don't know if they stay around all summer. In summertime we quit hunting ducks. That's the Eskimo law. Oldsquaws are not along the river where we are in summer.
CODE[11-100-111098

AMBLER. HARLEQUIN DUCK.
We see harlequin ducks. Some stay around all summer. People don't go for those unless it's a mistake.
CODE[11-100-111098

AMBLER. PINTAIL. MALLARD. TEAL. OLDSQUAW.
There have been lots of pintails, mallards, and teals ever since I was growing up. Quite a few oldsquaws, too.
CODE[11-100-111098

AMBLER. SURF SCOTER. OLDSQUAW. SEASONALITY.
Surf scoters come later in spring than the others. They come with the oldsquaws. After the ice goes out they come. Scoters and oldsquaws are mostly in the lakes where there is not much current. They go somewhere around the middle of June. They are not along the river where we are.
CODE[11-100-111098

AMBLER. SNOW GEESE. CANADA GEESE. SWAN. CRANE.
Snow geese come first, then Canada geese, swans, and cranes.
CODE[11-100-111098

AMBLER. COMMON LOON. NON-FOOD PRODUCTS. ARCTIC LOON. YELLOW-BILLED LOON. LOON EGGS. NESTING.
Common loons stay around all summer. People don't hunt them much. Some people catch them and turn them into shell bags. Mostly we have common loons, some arctic loons. Yellow-billed loons we call king loons. We see them some, but mostly they are down on the coast. We've gotten loon eggs a couple of times. They nest along lakes.
CODE[11-100-111098

AMBLER. SNIPE. GULL.
People used to get snipes long ago in starvation times. Also gulls.
CODE[11-100-111098

AMBLER. WILLOW PTARMIGAN. SEASONALITY. SPRUCE GROUSE.
There are lots of willow ptarmigan. They mainly come in the springtime. Thousands. People also hunt grouse.
CODE[11-100-111098

AMBLER. SANDHILL CRANE. NESTING.
People get a few sandhill cranes. I've seen their nests in the tundra. The nests are just depressions in the tundra with two or three eggs. It's hard to get close to their nests. They will fight for their nests with their sharp beaks.
CODE[11-100-111098

AMBLER. TUNDRA SWAN. POPULATION LEVELS.
People sometimes get swans. I don't know if I should say that I got one! They're coming back. Swans hang around lakes and inlets.
CODE[11-100-111098

AMBLER. SNOWY OWL.
We don't see snowy owls.
CODE[11-100-111098

AMBLER. GEESE. MOLTING. HUNTING METHODS.
In late July and early August, sometimes people go to lakes and drive molting birds, then club them.
CODE[11-100-111098

AMBLER. PINTAIL. MALLARD. SEASONALITY. OLDSQUAW. SCOTER. CUSTOMARY RULES.
Pintails and mallards are pretty skinny by the end of May, and we quit getting them. We hunt oldsquaws and scoters until the end of June. They stay fatter longer because they come later. Scoters and oldsquaws are in flocks together. We hunt them until the end of June. It stops about when sheefish come.
CODE[11-100-111098

AMBLER. WHITE-FRONTED GEESE. CANADA GEESE. POPULATION LEVELS. NESTING. MIGRATION.
White-fronts and Canadas always come in and stay all summer. Quite a few around late this fall. But seems like there is less than before. There were lots of birds last spring. Sometimes their migratory route changes.
CODE[11-15-110998

AMBLER. YELLOW-BILLED LOON. ARCTIC LOON.
We have yellow-billed and arctic loons. People get them sometimes. They are best in the springtime.
CODE[11-15-110998

AMBLER. MALLARD. PINTAIL. TEAL. HARLEQUIN.
We have mallards, pintails, teals. Pintails were slow in coming this year. We have harlequins. They are good to eat. You find them on the creeks.
CODE[11-15-110998

AMBLER. SANDHILL CRANE.
Some people eat cranes. I don't care for them. One time I saw one eat a dog. I never want to eat one after that.
CODE[11-15-110998

AMBLER. GEESE. MOLTING. HUNT RIVER.
We used to go to Hunt River and get molting geese. Lots of fun.
CODE[11-15-110998

AMBLER. PTARMIGAN. POPULATION LEVELS.
Quite a few ptarmigan around here. Lots of ptarmigan between here and Noatak last year. All over. Lots of people get them this time of year.
CODE[11-15-110998

# BIRD HUNTING IN BUCKLAND, ALASKA

November 1996 through October 1997

Results of a cooperative project by Maniilaq Association
and the Division of Subsistence, Alaska Department of Fish and Game,
funded by the U.S. Fish and Wildlife Service
March 1998

**Introduction**

Birds are important to families in northwest Alaska. They are an important part of the culture and traditional way of life of Alaska Natives. Birds and bird eggs are eaten for food, and feathers are used in hand-crafted items. This report presents information on bird hunting and harvests in Buckland for a 12-month period (November 1996-October 1997). The information results from a cooperative project between Maniilaq Association and the Alaska Department of Fish and Game.

**The Project**

Several groups worked together on the project to gather information on birds at Buckland. The Buckland IRA Council approved the project by resolution. A survey of households was done by a local researcher hired and supervised by Maniilaq Association. The project was designed by the Division of Subsistence, Alaska Department of Fish and Game, who also put the information into tables and into this report. Money for the project came from the U.S. Fish and Wildlife Service. Preliminary results were reviewed by Maniilaq and the Division of Subsistence, ADF&G.

***How the Information Was Collected***

A survey was used to gather information on bird harvests. Surveys were done in 40 randomly selected households of a total of 81 households (49 percent) in Buckland. Also, four bird hunters from Buckland were interviewed about bird ecology and traditional uses of birds. Surveys were done in November 1997 in Buckland. On the survey, people were asked about bird hunting during the 12-month period, November 1996 through October 1997. Participation in the survey was voluntary. To protect confidentiality, no person's name is used in any reports of the information.

**Findings**

Households in Buckland reported the following things about their use of birds and eggs in the 12-month period:

- Most households (85.0 percent) used birds (see Fig. 4).
- Nearly three-fourths of households hunted birds (see Fig. 4).
- Sharing of birds was common. One-half (50.0 percent) of households gave birds to other families, and 40.0 percent of households received birds from others (see Fig. 4).

- At least 24 kinds of birds were caught – white-fronted geese, cackling and lesser Canada geese, snow geese, brant, northern pintail, American wigeon, mallard, northern shoveler, greater and lesser scaup, green-winged teal, red-breasted merganser, oldsquaw, black scoter, white-winged scoter, common eider, common loon, mew gull, willow ptarmigan, rock ptarmigan, spruce grouse, sandhill crane, and tundra swan (see Table 1).

- At least 20 kinds of eggs were gathered during the study period – white-fronted geese, Canada geese, northern pintail, American wigeon, mallard, common eider, common loon, Pacific loon, common murre, black guillemot, Sabine's gull, mew gull, glaucous gull, arctic tern, cormorant, puffins, sandhill crane, and tundra swan.

- An estimated 2,108 birds were caught by households in Buckland during the 12-month study period.

- The five kinds of birds caught in greatest numbers were northern pintail (407 birds), lesser Canada geese (342 birds), mallard (239 birds), white-fronted geese (205 birds), and willow ptarmigan (182 birds) (see Table 1). These five kinds accounted for about 65 percent of all the birds caught by Buckland hunters.

- An estimated 3,370 eggs were gathered by households in Buckland during the 12-month study period. Most of these were gull and murre eggs (see Table 1).

- Birds were caught in every season of the year, with spring and fall the times of the highest bird harvest (see Fig. 3).

- The classifications of Canada geese harvests into "cackling Canada" or "lesser Canada" by hunters are uncertain because of the close resemblance of the two species and the difficulties distinguishing them in the colored bird guide used in the survey.

- Information from interviewed hunters about birds in the Buckland area is attached as an appendix.

**Computerized Data Files**

This information is available as computer files at Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752 (907-442-3311) or the Division of Subsistence, Alaska Department of Fish and Game, Box 3-2000, Juneau, Alaska 99802 (907-465-4147). Information requests can be made from either group.

**Acknowledgments**

A sincere thank-you is given to all households and hunters who generously agreed to be surveyed or interviewed for this project. A special thanks is given to Art Ivanoff of Maniilaq Association, who obtained IRA approvals, hired community assistants, and supervised data collection; the late Muriel Ross of Buckland, who conducted the household surveys; Susan Georgette of the Division of Subsistence, ADF&G, who trained surveyors, interviewed hunters, and wrote the report; and the Buckland IRA Council, who supported the project.

# Table 1. BUCKLAND
## Bird Harvests, November 1996-October 1997[1]

| Bird Species | | Total Harvests | | Bird Harvest By Season[2] | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Birds | Eggs | Winter | Spring | Summer | Fall | Unknown |
| **Geese** | White-fronted Geese | 205 | 20 | | 111 | | 93 | |
| | Emperor Geese | | | | | | | |
| | Cackling Canada Geese | 158 | 338 | | 105 | 4 | 49 | |
| | Lesser Canada Geese | 342 | 65 | | 203 | 4 | 136 | |
| | Snow Geese | 22 | | | 18 | | 4 | |
| | Brant | 12 | | | 6 | | 6 | |
| | Unknown Geese | | 61 | | | | | |
| **Ducks** | Northern Pintail | 407 | 128 | | 130 | 113 | 164 | |
| | American Wigeon | 93 | 24 | | 20 | | 73 | |
| | Mallard | 239 | 150 | | 119 | 10 | 109 | |
| | Northern Shoveler | 67 | | | 10 | 16 | 41 | |
| | Greater Scaup | 10 | | | 10 | | | |
| | Lesser Scaup | 38 | | | | | 38 | |
| | Canvasback | | | | | | | |
| | Green-winged Teal | 71 | | | 14 | 20 | 36 | |
| | Common Merganser | | | | | | | |
| | Red-breasted Merganser | 2 | | | | | 2 | |
| | Bufflehead | | | | | | | |
| | Harlequin | | | | | | | |
| | Oldsquaw | 4 | | | 4 | | | |
| | Common Goldeneye | | | | | | | |
| | Black Scoter | 103 | | | 43 | 41 | 16 | 4 |
| | Surf Scoter | | | | | | | |
| | White-winged Scoter | 18 | | | 8 | | 10 | |
| | Common Eider | 8 | 14 | | 2 | | 6 | |
| | King Eider | | | | | | | |
| | Spectacled Eider | | | | | | | |
| | Steller's Eider | | | | | | | |
| **Loons** | Common Loon | 2 | 8 | | | | 2 | |
| | Pacific (Arctic) Loon | | 8 | | | | | |
| | Red-throated Loon | | | | | | | |
| | Yellow-billed Loon | | | | | | | |
| **Seabirds** | Common Murre | | 527 | | | | | |
| | Thick-billed Murre | | | | | | | |
| | Unknown Murre | | 1,033 | | | | | |
| | Black Guillemot | | 81 | | | | | |
| | Sabine's Gull | | 41 | | | | | |
| | Mew Gull | 41 | 591 | | | | 41 | |
| | Glaucous Gull | | 41 | | | | | |
| | Unknown Gull | | 61 | | | | | |
| | Arctic Tern | | 8 | | | | | |
| | Pelagic Cormorant | | 4 | | | | | |
| | Auklets | | | | | | | |
| | Puffins | | | | | | | |
| | Other Seabirds | | 61 | | | | | |
| **Shorebirds** | Plover | | | | | | | |
| | Common Snipe | | | | | | | |
| **Game Birds** | Willow Ptarmigan | 182 | | 122 | 10 | | 47 | 4 |
| | Rock Ptarmigan | 69 | | 51 | | | 18 | |
| | Spruce Grouse | 4 | | | | | 4 | |
| **Snowy Owl** | | | | | | | | |
| **Sandhill Crane** | | 6 | 81 | | | | 6 | |
| **Tundra Swan** | | 4 | 26 | | | | 4 | |
| **TOTAL** | | **2,108** | **3,370** | **172** | **814** | **209** | **905** | **8** |

[1] Based on a random sample of 40 of 81 households, expanded to all households. Data were collected by a local researcher on contract with Maniilaq Association, through cooperative agreements between ADFG, Division of Subsistence, Maniilaq Association and US Fish and Wildlife Service. Research was approved by resolution of the Buckland IRA Council. Project funded by USFWS

[2] Winter=Nov, Dec, Jan, Feb; Spring=Mar, Apr, May; Summer=Jun, Jul; Fall=Aug, Sep, Oct.

SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1997.

# BUCKLAND
# Bird Harvest Patterns
# November 1996-October 1997

Fig. 1 **Buckland Bird Harvests, November 1996-October 1997, by Bird Type**

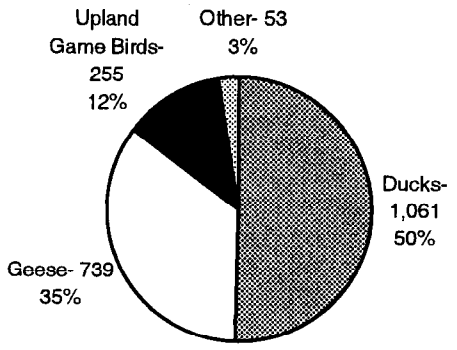



Fig. 2 **Buckland Egg Harvests, November 1996-October 1997, by Bird Type**

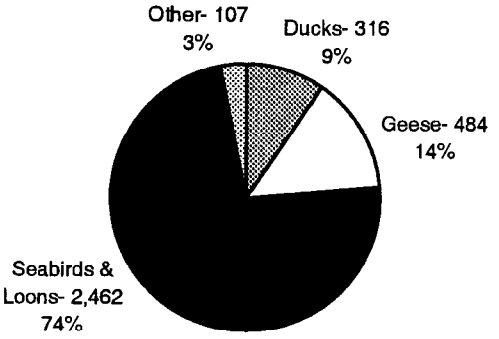



Fig. 3 **Buckland Bird Harvests, November 1996-October 1997, by Season**

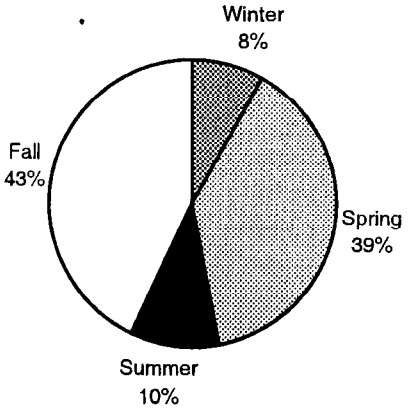
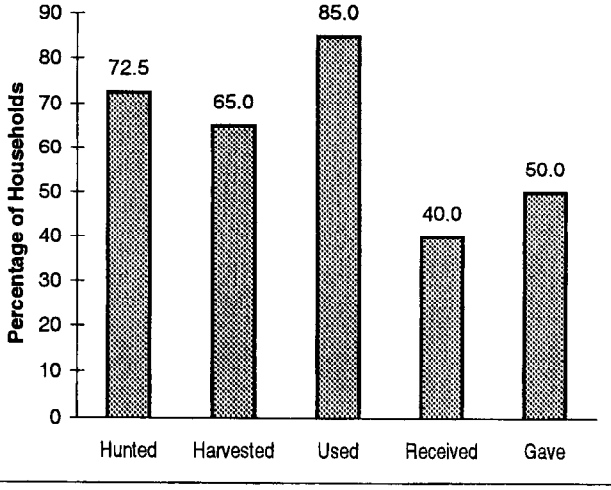



Fig. 4 **Percentage of Buckland Households that Hunted, Harvested, Used, Received, or Gave Birds, 1996**




SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1997.

# Migratory Bird Field Notes
## Buckland, Alaska
## November 1997

BUCKLAND. CANADA GEESE. CACKLING CANADA GEESE. SEASONALITY. NESTING.
We see cackling Canada geese, the small ones, once in awhile. We see them on the mud flats at the mouth of Buckland River. They are mixed in with the larger Canada geese. I never see them in summer. They don't nest around here.
CODE[70-10-110597

BUCKLAND. WHITE-FRONTED GEESE. SEASONALITY. PREFERENCE. POPULATION LEVELS.
We see white-fronted geese in the springtime. We call them "yellow-feet." They arrive in April or May and are the earliest ones gone in middle or late August. They are around here all summer. They nest around here upriver. White-fronted geese seem to be going down. Maybe there's half of what I saw 10 or 15 years ago. There are still lots, but not as many. Yellow-feet are the geese people prefer. Elders want to eat yellow-feet.
CODE[70-10-110597

BUCKLAND. EMPEROR GEESE. FEEDING. SEASONALITY.
We see emperor geese in Kiwalik Bay in late fall. Never see them in the spring. We call them "gray geese." We don't see many of them. We don't catch them much. But they are good to eat. They taste like clams. They eat seafood. We see them in groups of 20 to 50.
CODE[70-10-110597

BUCKLAND. SNOW GEESE. CANADA GEESE. SEASONALITY. HARVEST LEVELS.
There are lots of snow geese passing by in the spring. We hunt them. Usually I get about 10. One year I got 40. The last four years they've started coming to our bay. Once in awhile we see one or two in the fall banded up with Canada geese. I don't know why. We don't see them in summer.
CODE[70-10-110597

BUCKLAND. GEESE. MIGRATION.
Some geese come around Candle way by Granite Mountain to the flats near Kiwalik. Others come from other direction by Buckland River way.
CODE[70-10-110597

BUCKLAND. CANADA GEESE. SEASONALITY. POPULATION LEVELS. PREPARATION.
Canada geese come in spring. They stay all summer and nest all over around here. They start passing south in September when it starts freezing up. There are a few yet in October. There are a few left then one day they are just gone and it freezes up a day or two later. Like they know when it's going to freeze up. If you clean Canada geese right away they stay good and don't get a strong taste. Gut them right away and they stay

good. Canada geese seem to be going down from what they were 10 or 15 years ago. There are still plenty but seems like less. Other geese that are just passing through I can't tell how they are doing.
CODE[70-10-110597

BUCKLAND. BRANT. MIGRATION. POPULATION LEVELS.
We see brants in small bunches in the falltime. In springtime they are just passing through. They don't nest here. I don't know if their numbers are up or down.
CODE[70-10-110597

BUCKLAND. PINTAIL. POPULATION LEVELS.
We have lots of pintails. Never run out. Lot, lot, lot of pintails. It's the only bird that I never see a downfall or fewer numbers.
CODE[70-10-110597

BUCKLAND. WIGEON. PINTAIL. POPULATION LEVELS. MOLT. NESTING. HABITAT.
There are lots of wigeons, almost as many as pintails. Most birds molt in July but it seems like wigeons molt later, in August or September. Wigeons have nests on the coast and also along rivers.
CODE[70-10-110597

BUCKLAND. MALLARD. POPULATION LEVELS. HABITAT.
Mallards are my favorite ducks. There are not a lot but we do have some. They are about the same in number. They like grassy creeks. We see a lot of young ones.
CODE[70-10-110597

BUCKLAND. HUNTING SEASON. MOLT. PINTAIL.
There is some summer hunting in Buckland for molting ducks, mostly pintails.
CODE[70-10-110597

BUCKLAND. SHOVELER. MALLARD. POPULATION LEVELS.
We don't catch spoonducks [shovelers] too much, but if we're hungry we get them. They are about the same in number as mallards. Elders ask for them sometimes.
CODE[70-10-110597

BUCKLAND. GREATER SCAUP. SEASONALITY.
We see greater scaup. We call them "canvasbacks" because of the markings on their backs. We see them in the springtime. They are around here part of the summer. We hunt them once in awhile. They are real hard to pluck. That's why we don't try to get them. The ladies know they are hard to pluck.
CODE[70-10-110597

BUCKLAND. LESSER SCAUP. SEASONALITY.
We see lesser scaup. They are among the last to leave in the fall. Some are even here during freeze-up, the younger ones that can't get away. But they feed foxes. This is another one that is really hard to pluck.
CODE[70-10-110597

BUCKLAND. GREEN-WINGED TEAL. POPULATION LEVELS. HABITAT. SEASONALITY.
We used to see teal 200-300-400 in a bunch. Now we see them 20-50-100 in a bunch. Mating ones are scattered along the river. But they gather in bunches in the fall starting in August. They like small narrow creeks along the coast.
CODE[70-10-110597

BUCKLAND. POPULATION LEVELS. WEATHER CHANGES. DUCKS. GEESE.
There seem to be fewer birds than there used to be 10-15 years ago even though there are still plenty. I'm not sure why. There is still lots of food. But I've noticed the grass is getting yellow sooner. It is snowing and hailing in July and affecting the berries. It never used to do that. We had really big hailstones a couple of times in the summer. The grass used to stay green until the end of September. Now it's the middle or end of August. We hardly had any salmonberries this year, but blueberries were abundant. It's also flooding more lately. Ice covers the islands now. Nothing ever used to cover the islands. It never used to do that when I was younger.
CODE[70-10-110597

BUCKLAND. COMMON MERGANSER.
We have common mergansers. We call them "fish ducks." People don't catch them, not unless they have to. They have a stringy, bony kind of meat.
CODE[70-10-110597

BUCKLAND. OLDSQUAW. SEASONALITY.
My mom always wanted to get oldsquaws and cook them when I was younger. We call them "aahaaliqs." That's the sound they make. They are tamer than most birds and easier to catch. They come right up to you. They come a week or so later than other ducks and stay here all summer. They are never in big bunches, usually in pairs.
CODE[70-10-110597

BUCKLAND. SURF SCOTERS. SEASONALITY. POPULATION LEVELS.
We have surf scoters. We call them "black ducks," "devil ducks," "whistling ducks." They come early in the spring and stay around all summer. They move down to Eschscholtz Bay after awhile. We never see young ones. There are lots of them. They make some sort of echo noise when they take off. You can hear it on a calm day. They make a whistling sound and their wings also whistle when they fly.
CODE[70-10-110597

BUCKLAND. EIDER. POPULATION LEVELS. SEASONALITY. ECOLOGY.
We have two types of eiders. Either king, common, or spectacled, I'm not sure which two. Not very many. We see them just in the springtime. The females hang around

toward summer but we only see the males passing through. In summer, we only see the brown ones. Eiders hang out while there is ice in Eschscholtz Bay.
CODE[70-10-110597

BUCKLAND. ARCTIC LOON. COMMON LOON. YELLOW-BILLED LOON. SKIN. NESTING. POPULATION LEVELS.
We have loons. Arctic loons, the ones with the red eye. Also common loons and king loons. I think the king loons are these yellow-billed loons. We use their skins for shell bags. If you cut them up, you can chew on the fat like jerky. Real good. I've eaten them. Better than fish ducks. Loons nest around here in the lakes, rivers, down the bay. They seem to be about the same in number. King loons are used for shell bags because their skin is tough and it keeps things dry. Just turn it inside out and dry it. Put grass inside to keep its shape. People still make them but not as much as before.
CODE[70-10-110597

BUCKLAND. COMMON MURRE. CHAMISSO ISLAND. EGGS. POPULATION LEVELS. SEASONALITY.
We have common murres at Chamisso Island. We call them "crowbills." We get the eggs but not the birds. When I was a kid, my parents got birds of some kind from the island. There are about as many murres as always. But after the oil spill we found some dead ones. July 4th is usually when we get eggs at Chamisso. It takes about a half hour to get to the mouth of the river by boat and about an hour to get to the island. After you get the eggs the birds lay more.
CODE[70-10-110597

BUCKLAND. CHAMISSO ISLAND. CORMORANT.
We see some all black birds at Chamisso. [Cormorants?] We never see their eggs and never see their young ones. They are all the way at the top. There are not many, but some.
CODE[70-10-110597

BUCKLAND. ARCTIC TERN.
We have terns but we don't like to mess with them. They go after people. I've been hit by them. Their eggs are small and you would need a hundred to eat.
CODE[70-10-110597

BUCKLAND. GULL EGGS. SEASONALITY.
We go after gull eggs in May.
CODE[70-10-110597

BUCKLAND. HORNED PUFFIN. CHAMISSO ISLAND. EGGS.
We have horned puffins at Chamisso Island. People get their eggs. I've eaten puffins one time before. Back in the 1950s people tried to save (shot)shells and got whatever they could. Now we have all the ammo we need.
CODE[70-10-110597

BUCKLAND. CURLEW.
People get curlews sometimes. Twenty years ago people were eating them.
CODE[70-10-110597

BUCKLAND. WILLOW PTARMIGAN. ROCK PTARMIGAN. HUNTING SEASON.
Ptarmigan populations are doing pretty good. We have both kinds around -- willow and rock. The rock ptarmigan are further up that way, the willow ptarmigan are around here. We don't hunt them in August. We hardly see them then. Just before freeze-up they start showing up at the edge of the river. We hunt them in the fall and winter.
CODE[70-10-110597

BUCKLAND. SNOWY OWL.
A few old-time elders want to eat snowy owls but I've never eaten one. We never see them in the summer. Only in the winter.
CODE[70-10-110597

BUCKLAND. SANDHILL CRANE. SEASONALITY. TRADITIONAL BELIEF.
Cranes really start coming in with the geese. I've heard that summerbirds [songbirds] come in under cranes' wings. I don't know where I heard that, but I heard it somewhere. We don't hunt them too much. We get a few. One elder I know always wants one. Just in the spring when they first come is when elders want them. We don't bother them otherwise. Cranes come a week or so behind the geese. They take off just after the yellow-feet [white-fronts], maybe later August. Some are around in September.
CODE[70-10-110597

BUCKLAND. TUNDRA SWAN. PREFERENCE.
We see lots of swans. I caught one once. The meat is not so good to me. I know some people do get them. The young ones are good.
CODE[70-10-110597

BUCKLAND. DUCKS. HUNTING SEASON.
There's more duck hunting in falltime than in springtime. The hunting is continuous in the fall after molting. In the springtime we just get them for some different kind of meat. Springtime hunting is dangerous, too. I've sunk two snowmachines hunting birds. I came back with the geese but not with my snowmachine.
CODE[70-10-110597

BUCKLAND. DUCKS. GEESE. HUNTING AREA.
Most bird hunting takes place from the village to the flats of Buckland River.
CODE[70-10-110597

BUCKLAND. DUCKS. GEESE. HUNTING SEASON.
June and July is the dry season for bird hunting. No one is out looking for them then, unless they are hungry.
CODE[70-10-110597

BUCKLAND. WHITE-FRONTED GEESE. CANADA GEESE. NESTING. POPULATION LEVELS.
The most common geese around here are yellow-feet [white-fronts] and Canadas. They nest around here. There are fewer now than when I was younger. In the late '40s and '50s there was quite a bit. But there's lots yet, in our area anyways.
CODE[70-33-110597

BUCKLAND. EMPEROR GEESE. SNOW GEESE. BRANT. SEASONALITY.
We don't see emperor geese. We see white [snow] geese and brants pass by in the springtime. We don't see them in the falltime.
CODE[70-33-110597

BUCKLAND. TUNDRA SWAN. HUNTING SEASON. GEESE. DUCKS. OLD DAYS. PRESERVATION. CUSTOMARY RULES.
We have lots of swans. They gather in our flats before freeze-up in big bunches. We like to eat them. We like to eat all sorts of waterfowl. When we didn't have freezers, we could only live on fresh meat. We didn't get a big pile of birds because it would spoil. We divided up what we got with the village. Now we can hunt anytime. We put it in the freezer and have it any time of year. In the old days we only eat it fresh. Divide it up in the village right away. All through summer people used to hunt birds. Now our freezers are always full. Caribou. Moose. Ugruk. Birds.
CODE[70-33-110597

BUCKLAND. PINTAIL. MALLARD. WIGEON. SHOVELER. GREEN-WINGED TEAL. MERGANSER. OLDSQUAW. POPULATION LEVELS. MOLTING.
Pintails, mallards, wigeons, spoonbills [shovelers] are all good to eat. We also have teal, mergansers, and oldsquaws. After the molt, lots of ducks are down the river. All kinds. About berrypicking time in August. There are quite a few ducks after they change their feathers.
CODE[70-33-110597

BUCKLAND. COMMON EIDER. NESTING.
Common eider nest around here in the flats by the ocean side. Big seagulls pick up young eiders swimming around on the beach. I've seen them do it while I was walking reindeer in the springtime. The young eiders keep going under but when they get tired, the big seagulls catch them. Eiders nest in the mouth of Kiwalik down on the coast and at the mouth of Buckland River. When the young ones grow, the eiders leave. We don't see other kinds of eiders.
CODE[70-33-110597

BUCKLAND. ARCTIC LOON. YELLOW-BILLED LOON. SKIN. NON-FOOD PRODUCT.
People catch loons. Not really, they don't. Now and then my old man used to. They make shell bags out of their skins. They are good to eat when you got nothing. I think we have arctic loons. We also got king loons [yellow-billed?], the really big ones.
CODE[70-33-110597

BUCKLAND. COMMON MURRE. CHAMISSO ISLAND. EGGS. BIOLOGY.
We have crowbills [murres] on Chamisso Island. Long time ago my dad used to get one or two murres just to eat. We get the eggs. Each time you take the eggs, the next ones they lay get smaller and smaller. The first batch is big. I don't know how many times they can lay. We clean out a certain spot [of eggs] only. Not way up high. An easy spot where you can climb around.
CODE[70-33-110597

BUCKLAND. ARCTIC TERN. GULL. EGGS.
I don't get tern eggs. They're too small. Before we had a city dump, we used to get seagull eggs.
CODE[70-33-110597

BUCKLAND. HORNED PUFFIN. CHAMISSO ISLAND. EGGS.
We have horned puffins on Chamisso Island. People get their eggs. There are quite a bit of birds of all kinds on Chamisso Island.
CODE[70-33-110597

BUCKLAND. EGGS. PRESERVATION.
Long time ago people used to get a lot of eggs because we had no chicken eggs. People used to keep eggs in the ground or cook them and put them in seal oil.
CODE[70-33-110597

BUCKLAND. PLOVER. SNIPE. CURLEW. EGGS.
We don't hunt plovers or their eggs. It's pretty hard to find their eggs. Plovers are on the beach near Kiwalik. My dad used to get one or two snipe for his parents when I was younger. He used to get curlews, too.
CODE[70-33-110597

BUCKLAND. SPRUCE GROUSE. SNOWY OWL. EGGS.
We have grouse upriver where we got trees. We have snowy owls, too. Some lay their eggs on an island down here near my allotment. I never catch them. My father didn't and I didn't.
CODE[70-33-110597

BUCKLAND. DUCKS. GEESE. POPULATION LEVELS.
It seems like there are about the same numbers of birds now as before.
CODE[70-33-110597

BUCKLAND. TUNDRA SWAN. EGGS. REGULATIONS.
Swans make their eggs in the tundra. We have lots of them. When you fly around, you can see some on every lake. You cook them like a turkey. There used to be a $500 fine for hunting swans, so people forgot how to do it.
CODE[70-33-110597

BUCKLAND. SANDHILL CRANE.
We have lots of cranes. We catch them once in awhile. People find out they eat mice and don't want to hunt them.
CODE[70-33-110597

BUCKLAND. PINTAIL. MALLARD. SHOVELER.
Pintails come in springtime and stay all summer. We hunt them a lot. Mallards, too. We also have spoonducks [shovelers].
CODE[70-57-110597

BUCKLAND. GREEN-WINGED TEAL.
We have teal. We call them "cup-a-soup" because they are small. Hardly anyone ever gets them. Just by accident if they are with other ducks.
CODE[70-57-110597

BUCKLAND. RED-BREASTED MERGANSER.
Red-breasted mergansers are around here. We don't catch them unless they get caught in our nets. We don't eat them.
CODE[70-57-110597

BUCKLAND. OLDSQUAW. BLACK SCOTER.
People hunt oldsquaws in the springtime when going downriver. There are always lots in the river when going down. We also get black scoters.
CODE[70-57-110597

BUCKLAND. COMMON EIDER. EGGS. ECOLOGY. NESTING.
Common eiders lay eggs on island near the Buckland River flats close to the ice. After the eggs hatch, the birds follow the ice. They don't stick around. We don't see them in summer. They are mostly with the ice.
CODE[70-57-110597

BUCKLAND. LOON. SKIN. NON-FOOD PRODUCTS.
People get loons sometimes. Nowadays we hardly get them. My dad used to get them for shell bags.
CODE[70-57-110597

BUCKLAND. CHAMISSO ISLAND. EGGS. GULL. SEASONALITY.
We go to Chamisso Island to get eggs right after the 4th of July. In springtime, people get gull eggs as soon as the ice is good to go downriver right after breakup.
CODE[70-57-110597

BUCKLAND. GLAUCOUS GULL. SABINE'S GULL.
We see yellow-tipped gulls [glaucous] around here. We barely see these Sabine's gulls around here.
CODE[70-57-110597

BUCKLAND. SNOWY OWL.
We see snowy owls only in winter.
CODE[70-57-110597

BUCKLAND. CRANE.
We mostly get the gray cranes, not all these kinds [pictured here]. They are darker and don't have big tails. The meat is sinewy. People don't eat them.
CODE[70-57-110597

BUCKLAND. EMPEROR GEESE. BRANT. MIGRATION. CANADA GEESE. WHITE-FRONTED GEESE.
We never see emperor geese. Brants fly right by and don't stop here. We see them in both fall and spring. We hardly catch them. They don't stay around long enough to hunt. Mostly what we get are Canadian and orange-billed [white-fronted] geese.
CODE[70-57-110597

BUCKLAND. CANADA GEESE. WHITE-FRONTED GEESE. SNOW GEESE. EMPEROR GEESE. CACKLING CANADA GEESE. POPULATION LEVELS. SEASONALITY.
Black geese [Canada geese] are the most abundant around here. Then yellow-feet [white-fronts], then snow geese. We see snow geese only in the springtime. Quite a bit in the springtime. I didn't catch one this year but I catch them sometimes. I've never seen emperor geese or cackling Canada geese.
CODE[70-19-110597

BUCKLAND. BRANT. SEASONALITY.
Brants we only see on the coast. We see them in groups near Kiwalik in springtime. I've caught lots of brants.
CODE[70-19-110597

BUCKLAND. HARVEST LEVELS. WEATHER CHANGES. HUNTING SEASON. DUCKS. GEESE.
It seems like we get less birds than we used to. There is not as much time to hunt them now. There is not much snow so it melts too fast in spring. We can't get to where the birds are. We used to get big drifts of snow. Cars couldn't get by on the road. Now we just get an inch of snow. If there's lots of snow, it melts slower and we can travel around more in the spring. The only time I really hunt is in springtime but there hasn't been enough snow.
CODE[70-19-110597

BUCKLAND. PINTAIL. HUNTING SEASON. HUNTING METHOD. MOLT.
Pintails are my favorite. Everyone loves them, especially the young ones just before they fly. Lots of fat, real sweet. If you shoot the female pintail first, the male stays around and you can get it, too. Sometimes people catch pintails when they can't fly by herding them up. Then catch them or shoot them and boil them up. We did that once along the coast.
CODE[70-19-110597

BUCKLAND. MERGANSER.
Nobody really hunts fish ducks [mergansers], but some people catch them sometimes.
CODE[70-19-110597

BUCKLAND. OLDSQUAW.
Aahaaliqs [oldsquaws] mostly stay in lakes. No one hunts them.
CODE[70-19-110597

BUCKLAND. GULL. DUCK. EGGS. RAVEN. SEASONALITY.
Gull and duck eggs are gathered at the end of May or June. Ravens have eggs in early May, but people don't eat them. I've climbed trees to look in their nests and seen eggs in early May.
CODE[70-19-110597

BUCKLAND. BLACK SCOTER. SEASONALITY. BIOLOGY.
The ones we call "black ducks" are mostly black scoters. They are hard to kill. They are tough and fast. They gather by the hundreds in the falltime in the ocean. Mostly we like to catch them in the springtime when they are fat.
CODE[70-19-110597

BUCKLAND. EIDER. EGGS. KING EIDER.
We see eiders along the ocean when hunting seal. We see their eggs along the coast. I think it's the king eider.
CODE[70-19-110597

BUCKLAND. CHAMISSO ISLAND. MURRE. PUFFIN. GULL. CORMORANT. EGGS. ARCTIC TERN.
Chamisso Island has murres, puffins, seagulls, and those big black ones [cormorants?] that are very high. You only see about three of these at the most. It's hard to get their eggs because they are so high. Mostly we get seagull eggs. Puffin eggs are too small. We have big seagulls that are mostly all white and smaller seagulls that are gray. We have lots of arctic terns. They steal smelt.
CODE[70-19-110597

BUCKLAND. WILLOW PTARMIGAN. ROCK PTARMIGAN. SPRUCE GROUSE.
We have both kinds of ptarmigan around here. We have grouse upriver. They sit in trees.
CODE[70-19-110597

BUCKLAND. SANDHILL CRANE. TUNDRA SWAN. GEESE. PINTAIL.
We have lots of cranes. They come in late. People don't eat them much. They're not on our menu. Swans are popular. The elders like them. My wife doesn't like them so we don't eat them. Geese are the main menu item in Buckland. My favorite thing is pintails.
CODE[70-19-110597

BUCKLAND. SNIPE. HUNTING SEASON.
People sometimes get big snipes, the ones the size of a baby duck. Elders like them. Big snipes are hunted in the fall time when they're getting fatter.
CODE[70-19-110597

BUCKLAND. LOON. SKIN. NON-FOOD PRODUCT.
King loons are used for shell bags. Turn the skins inside out, dry them, and put zipper. Some people still do it.
CODE[70-19-110597

BUCKLAND. GEESE. GULL. DUCK. SANDHILL CRANE. MIGRATION. HUNTING METHODS. HUNTING AREA. SEASONALITY.
Spring hunting takes place upriver with snowmachine. It melts first up in the mountains. For some reason it melts quicker up there. We make blinds on the other side of the mountain to hunt geese in spring. Seagulls are the first to arrive in spring, then geese, ducks, cranes. In falltime, hunting is down on the coast. The birds start gathering along the coast. In August and September, at the right spot there are 300 to 400 birds. With a few shots, you can get all you need. The sky is black with geese in the fall. Spring probably has one-tenth of the birds that fall has.
CODE[70-19-110597

# BIRD HUNTING IN DEERING, ALASKA

November 1997 through October 1998

Results of a cooperative project by Maniilaq Association
and the Division of Subsistence, Alaska Department of Fish and Game,
funded by the U.S. Fish and Wildlife Service
April 1999

**Introduction**

Birds are important to families in northwest Alaska. They are an important part of the culture and traditional way of life of Alaska Natives. Birds and bird eggs are eaten for food, and feathers are used in hand-crafted items. This report presents information on bird hunting and harvests in Deering for a 12-month period (November 1997-October 1998). The information results from a cooperative project between Maniilaq Association and the Alaska Department of Fish and Game.

**The Project**

Several groups worked together on the project to gather information on birds in Deering. The Deering IRA Council approved the project by resolution. A survey of households was done by a local researcher hired and supervised by Maniilaq Association. The project was designed by the Division of Subsistence, Alaska Department of Fish and Game, who also put the information into tables and into this report. Money for the project came from the U.S. Fish and Wildlife Service. Preliminary results were reviewed by Maniilaq and the Division of Subsistence, ADF&G.

**How the Information Was Collected**

A survey was used to gather information on bird harvests. Surveys were done in 38 of 50 households (76 percent) in Deering. Also, four bird hunters from Deering were interviewed about bird ecology and traditional uses of birds. Surveys were done in January 1999 in Deering. On the survey, people were asked about bird hunting during the 12-month period, November 1997 through October 1998. Participation in the survey was voluntary. To protect confidentiality, no person's name is used in any reports of the information.

**Findings**

Households in Deering reported the following things about their use of birds and eggs in the 12-month period:

- Most households (84 percent) used birds (see Fig. 4).
- About one-half of households hunted birds (see Fig. 4).
- Sharing of birds was common. Almost one-half (45 percent) of households gave birds to other families, and 55 percent of households received birds from others (see Fig. 4).
- At least 16 kinds of birds were caught—white-fronted geese, Canada geese, snow geese, brant, northern pintail, American wigeon, mallard, northern shoveler, green-winged teal,

white-winged scoter, common eider, common loon, common murre, willow ptarmigan, sandhill crane, and tundra swan (see Table 1).

- An estimated 613 birds were caught by households in Deering during the 12-month study period.

- The five kinds of birds caught in greatest numbers were Canada geese (137 birds), northern pintail (133 birds), willow ptarmigan (128 birds), mallard (70 birds), and northern shoveler (33 birds) (see Table 1). These five kinds accounted for 82 percent of all the birds caught by Deering hunters.

- An estimated 1,492 eggs were gathered by households in Deering during the 12-month study period. Most of these were gull and common murre eggs (see Table 1).

- Birds were caught in every season of the year, with spring the time of the highest bird harvests (see Fig. 3).

- According to knowledgeable hunters, most of the Canada geese caught by Deering residents are the subspecies called lesser Canada geese. One of the local names for these Canada geese is "cacklers." Classifying Canada geese harvests into subspecies ("lesser" or "cackling") proved difficult because of the different naming systems and the close resemblance of Canada geese subspecies in colored bird guides.

- Information from interviewed hunters about birds in the Deering area is attached as an appendix.

**Computerized Data Files**

This information is available as computer files at Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752 (907-442-3311) or the Division of Subsistence, Alaska Department of Fish and Game, Box 3-2000, Juneau, Alaska 99802 (907-465-4147). Information requests can be made from either group.

**Acknowledgments**

A sincere thank-you is given to all households and hunters who generously agreed to be surveyed or interviewed for this project. A special thanks is given to Enoch Shiedt of Maniilaq Association, who obtained tribal council approvals, hired community assistants, and supervised data collection; Brenda Moto of Deering, who conducted the household surveys; Susan Georgette of the Division of Subsistence, ADF&G, who trained surveyors, interviewed hunters, and wrote the report; and the Deering IRA Council, who supported the project.

# Table 1. DEERING
# Bird Harvests, November 1997-October 1998[1]

| Bird Species | | Total Harvests | | Bird Harvest By Season[2] | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Birds | Eggs | Winter | Spring | Summer | Fall | Unknown |
| **Geese** | White-fronted Geese | 28 | | | 28 | | | |
| | Emperor Geese | | | | | | | |
| | Canada Geese | 137 | | | 118 | | 18 | |
| | Snow Geese | 1 | | | 1 | | | |
| | Brant | 30 | | | 28 | | 3 | |
| **Ducks** | Northern Pintail | 133 | | | 86 | 22 | 25 | |
| | American Wigeon | 7 | | | 7 | | | |
| | Mallard | 70 | | | 24 | 7 | 39 | |
| | Northern Shoveler | 33 | | | 1 | 32 | | |
| | Greater Scaup | | | | | | | |
| | Lesser Scaup | | | | | | | |
| | Canvasback | | | | | | | |
| | Green-winged Teal | 3 | | | 3 | | | |
| | Common Merganser | | | | | | | |
| | Red-breasted Merganser | | | | | | | |
| | Bufflehead | | | | | | | |
| | Harlequin | | | | | | | |
| | Oldsquaw | | | | | | | |
| | Common Goldeneye | | | | | | | |
| | Black Scoter | | | | | | | |
| | Surf Scoter | | | | | | | |
| | White-winged Scoter | 4 | | | | 4 | | |
| | Common Eider | 7 | | | 3 | | 4 | |
| | King Eider | | | | | | | |
| | Spectacled Eider | | | | | | | |
| | Steller's Eider | | | | | | | |
| | Unknown Ducks | | 7 | | | | | |
| **Loons** | Common Loon | 3 | | | | | 3 | |
| | Pacific (Arctic) Loon | | | | | | | |
| | Red-throated Loon | | | | | | | |
| | Yellow-billed Loon | | | | | | | |
| **Seabirds** | Common Murre | 22 | 746 | | 11 | | 12 | |
| | Thick-billed Murre | | | | | | | |
| | Black Guillemot | | | | | | | |
| | Sabine's Gull | | | | | | | |
| | Mew Gull | | | | | | | |
| | Glaucous Gull | | 676 | | | | | |
| | Unknown Gull | | 63 | | | | | |
| | Arctic Tern | | | | | | | |
| | Auklets | | | | | | | |
| | Puffins | | | | | | | |
| **Shorebirds** | Plover | | | | | | | |
| | Common Snipe | | | | | | | |
| **Game Birds** | Willow Ptarmigan | 128 | | 92 | 8 | | 28 | |
| | Rock Ptarmigan | | | | | | | |
| | Spruce Grouse | | | | | | | |
| **Snowy Owl** | | | | | | | | |
| **Sandhill Crane** | | 7 | | | 5 | | 1 | |
| **Tundra Swan** | | 3 | | | 1 | | 1 | |
| **TOTAL** | | **613** | **1,492** | **92** | **322** | **64** | **134** | |

[1] Based on a census sample of 38 of 50 households, expanded to all households. Data were collected by a local researcher on contract with Maniilaq Association, through cooperative agreements between ADFG, Division of Subsistence, Maniilaq Association, and U.S. Fish & Wildlife Service. Research was approved by resolution of the Deering IRA Council. Project funded by USFWS.

[2] Winter=Nov, Dec, Jan, Feb; Spring=Mar, Apr, May; Summer=Jun, Jul; Fall=Aug, Sep, Oct.

SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1998.

# DEERING
## Bird Harvest Patterns
## November 1997 - October 1998

Fig. 1 **Deering Bird Harvests, November 1997 - October 1998, by Bird Type**

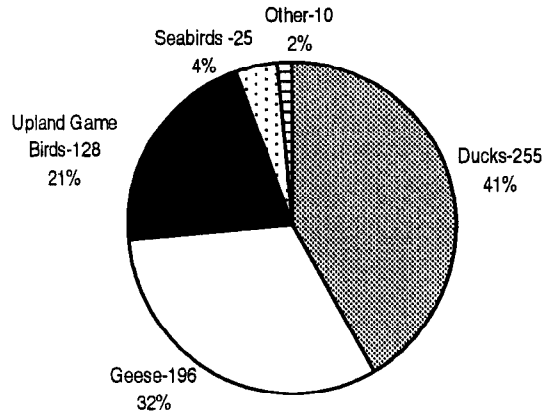



Fig. 2 **Deering Egg Harvests, November 1997 - October 1998, by Bird Type**

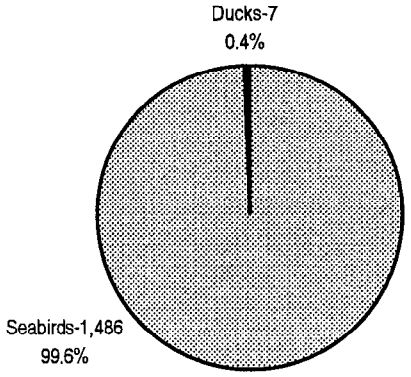



Fig. 3 **Deering Bird Harvests, November 1997 - October 1998, by Season**

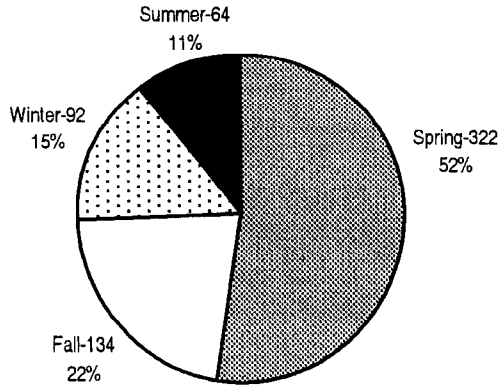
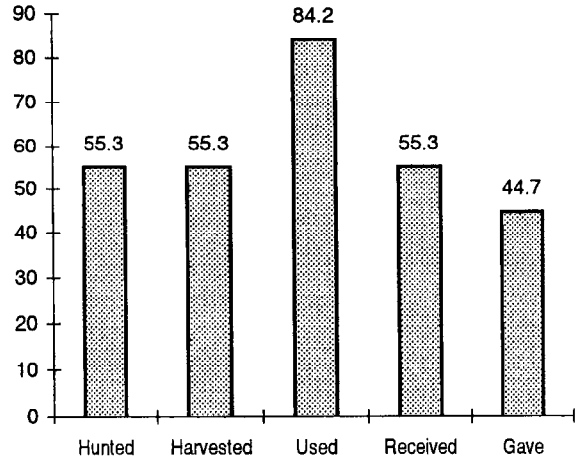



Fig. 4 **Percentage of Deering Households that Hunted, Harvested, Used, Received, or Gave Birds, 1997-98**




SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1998.

# Migratory Bird Key Respondent Notes, 1999
# Deering

DEERING. GEESE. PREFERENCES. CANADA GEESE. WHITE-FRONTED GEESE.
I like to mainly hunt geese. They are the smartest ones. We have all these geese [on bird chart] but Canadas and white-fronts are the most evident.
CODE[110-24-010699

DEERING. GOLDEN EAGLE.
Ray Mendenhall had a golden eagle when I was young. They're supposed to be pretty tender to eat if you need to. I saw a golden eagle last October. I had hardly ever seen them but in the past couple of years I have seen one each year.
CODE[110-24-010699

DEERING. SNOWY OWL. EMPEROR GEESE.
An elderly woman used to like to eat white owl and emperor geese. Last time I shot one I gave it to her. I never eat them myself.
CODE[110-24-010699

DEERING. SNOW GEESE. SEASONALITY. HUNTING AREA.
We see and hunt snow geese in the springtime. From time to time we see them in the falltime. My son once got one in the fall, but it's rare. These geese might travel some other way in the fall. We have a spring camp 15 miles down the coast where I have taken my family for the last 20 years. Not a cabin, just a tent. We used to get snow geese down there but in the last few years we haven't got any. We usually see small groups come through.
CODE[110-24-010699

DEERING. EMPEROR GEESE. POPULATION LEVELS. BRANT. SEASONALITY. NESTING. PREFERENCES. CANADA GEESE. WHITE-FRONTED GEESE.
Emperor geese are fairly scarce. You have to go down the coast quite a ways to find them. Their numbers are low so I don't like to hunt them much. They are some of the last ones to head out, often in the middle of October. Brants leave late, too. Last year we got one brant in October. We mostly see emperors in pairs or in groups of 6-7. When I was younger I used to see flocks sometimes, but not now. At least I don't. Some emperors nest down the coast but I don't bother them. They taste different. I don't know how to describe how they taste different. I prefer Canadas and white-fronts. My dad used to be crazy for emperors, but he was raised right in the middle of where they nest.
CODE[110-24-010699

DEERING. CANADA GEESE. CACKLING CANADA GEESE.
I've never seen real small Canada geese [cackling Canada geese]. Some people say they have seen real big Canada geese.

CODE[110-24-010699

DEERING. BRANT. POPULATION LEVELS. NESTING. CAPE DECEIT. SEASONALITY.
A fairly good population of brants comes through here. But they come late. By that time, the ice is so bad that it's too hard to get to them. They nest in the preserve. We see pretty good-sized flocks along the coast over open water. When I was younger, we used to hunt them at the point [Cape Deceit].
CODE[110-24-010699

DEERING. SANDHILL CRANE. POPULATION LEVELS. PREFERENCES.
There are more cranes than you can shake a stick at. I hardly hunt them. I give them away to Kotzebue or to old people. I used to hunt cranes more when I was younger. But now there is more food available so we can be choosier about what we eat. The population of cranes is increasing. You can get any number you want.
CODE[110-24-010699

DEERING. CANADA GEESE. WHITE-FRONTED GEESE. POPULATION LEVELS. EMPEROR GEESE.
The population of Canadas and white-fronts is probably stable. I would say the emperors would be declining. At least that's what I've seen.
CODE[110-24-010699

DEERING. SANDHILL CRANE. WHITE-FRONTED GEESE. SEASONALITY. NESTING. CANADA GEESE.
Cranes and white-fronts come first in the spring. White-fronts leave first in the fall. Canada geese and white-fronts nest anywhere. One river I know they nest on cliffs. They nest on hills, in swampy areas, or on islands. Mainly on islands it looks like to me around here.
CODE[110-24-010699

DEERING. COMMON EIDER. POPULATION LEVELS. NESTING. SEASONALITY.
Common eiders stay around all summer and into the fall. They stay late as long as there is water around. There is a good population of them. They nest around here. We don't hunt them as much as we used to.
CODE[110-24-010699

DEERING. GEESE EGGS. MURRE EGGS. CHAMISSO ISLAND. EGGING METHODS. SEASONALITY. PRESERVATION. SHARING.
We used to get geese eggs but now it's easier to get chicken eggs. Now we concentrate on murre eggs. I started egging when I was 11 at Chamisso. Now I'm 50 years old. I've been getting eggs for 39 years. I wanted to get eggs for one more year but my arm is getting too weak to hold the rope. There are pegs on top of the cliffs that we tie a rope to. We hold the rope with one hand and climb down to its end. You gather eggs in your jacket as you go. You make as many trips [up and down the rope] as you need. I use a ¾-inch manila rope. I was given it by an old-timer in Shishmaref who used to live in Deering. Some people like thinner ropes but you have to work harder to hang on. From

the 4th of July to the end of July the eggs are good. Each time you take the eggs from the nest the eggs get smaller and smaller. Mostly we got crowbill eggs. People don't go egging as much as they used to. I usually go out with a couple of guys. You have to have someone watch the peg and someone in the boat in case you fall. I've taken my nephew with me and my grandson has watched. We give away eggs and eat them fresh. I've heard that people put eggs away in the old days, but I don't know how.
CODE[110-24-010699

DEERING. DIVISION OF LABOR. EGGING.
Women don't climb the cliffs for egging. They could but they don't usually. People say that way back there was a lady who climbed. People tell stories about her.
CODE[110-24-010699

DEERING. EGGING. USE AREAS. EGGING METHODS.
I like to pick eggs at Rex Bluffs. I prefer to climb there because you climb over water so if you fall you land in water. The biggest colonies are at Toawlevic Point. But there you climb over rocks so if you fall you land on rocks. There is also a bird colony at Cape Deceit. Last summer I tried climbing a small rock near Toawlevic Point. There are not many injuries from egging. About 20 years ago, one guy got hit on the head with a rock and froze. People had to go get him. A couple of my relatives have fallen and landed in the water. You can't climb when it's raining. It's real slippery and starts smelling. My grandparents used to camp near Rex Creek. They would stay there all spring until breakup and then come back by boat.
CODE[110-24-010699

DEERING. PUFFIN. EGGS. NATURAL HISTORY.
We have puffins on the bluffs but we don't get their eggs much. Puffins nest in holes so you got to stick your hand in to get them. When I was younger I used to, but sometimes they bite.
CODE[110-24-010699

DEERING. MURRE. SEASONALITY.
Crowbills [murres] come around early as long as there are cracks in the ice. We used to eat them as kids. We shoot them on the bluffs from a boat or on the ocean early in the season.
CODE[110-24-010699

DEERING. TUNDRA SWAN. SEASONALITY. PROCESSING. NATURAL HISTORY.
We see swans in the springtime, not much in the falltime. There are all kinds of swans down the coast. They are hard to pluck. You have to pluck them when they're warm. I don't usually get them unless my wife is with me or there is a loner. If you get one, the mate hangs around. Sometimes I get one when the hunting's slow and I pluck it right then.
CODE[110-24-010699

DEERING. GEESE. DUCKS. HUNTING SEASON. HUNTING AREAS.
Most of my bird hunting is in the spring. It is harder to catch them in the fall. They are a lot smarter then. In the falltime, certain places on the coast are good [for hunting], just before dark.
CODE[110-24-010699

DEERING. GEESE. DUCKS. PRESERVATION.
We never put birds in the freezer. We did that once when we first got electricity in 1976. When spring came and we saw all those dead birds in the freezer, I told my wife don't ever do that again. We have seasonal tastes. Right now we are hungry for caribou.
CODE[110-24-010699

DEERING. PINTAIL. MALLARD. SCAUP. GREEN-WINGED TEAL. OLDSQUAW. MERGANSER. CANVASBACK. SCOTER.
Pintails are the most common duck around here. We also have mallards, scaup, teal, ahaaliqs [oldsquaws], fish ducks [mergansers], some canvasbacks. Growing up my uncle used to hunt scoters a lot. In the falltime there are big groups of them. We used to call them "devil ducks" or "black ducks."
CODE[110-24-010699

DEERING. CORMORANT. EGGS. POLLUTION.
There are a few cormorants on the cliffs. My wife observed that after the Exxon Valdez we saw very few cormorants or small snipes. In the past couple of years, they've started coming back. There are only half-a-dozen to a dozen cormorants out there. I never did see cormorant eggs.
CODE[110-24-010699

DEERING. ARCTIC TERN. EGGS. BEHAVIOR.
Tern eggs are all over. The birds are terrible. You can't even get close to them. They protect their eggs.
CODE[110-24-010699

DEERING. LOON. YELLOW-BILLED LOONS. POPULATION LEVELS. PREFERENCES. SKINS. NON-FOOD PRODUCTS.
We hardly ever get loons anymore. When we were younger, we used to get anything that came within range. Now we can be pickier. We see king loons [yellow-billed], but they are not as numerous as other ones. I've seen shell bags made out of their skin, but you don't see those too much anymore.
CODE[110-24-010699

DEERING. GULL. POPULATION LEVELS.
The population of seagulls is way too high in my opinion. They do more damage on eggs and young birds.
CODE[110-24-010699

DEERING. SPRUCE GROUSE.
Two years in a row I saw a spruce hen. One landed right on the roof of a house in town! First time I'd ever seen anything like that. That was last October.
CODE[110-24-010699

DEERING. HAWK. FALCON. MURRE. KITTIWAKE.
Someone said there might be a hawk bothering birds on the bluffs so they didn't lay eggs. One of the elders around here told us that when hawks were bothering the birds her husband used to go down and kill the hawks.
CODE[110-24-010699

DEERING. GEESE. DUCKS. MOLTING. HUNTING METHODS. HARVEST LEVELS. SHARING.
Molting birds are fat and easy to pluck. My dad used to put me on an island with a stick and tell me to go after them. They scatter and try to hide when you chase them. They think they are hiding, but they are just crouched down. That's where the stick comes in handy. You can't chase them down. Sometimes my dad shot them in the head. Once in awhile we get half a dozen or so. Geese and ducks. We give them away. They make a good pot of soup. It really raises mosquitoes. The mosquitoes are thick down there where the birds molt.
CODE[110-24-010699

DEERING. GULL EGGS.
We get a lot of seagull eggs at breakup. There was so much south wind last year that the ice broke up. The ice all cracked up.
CODE[110-24-010699

DEERING. CANADA GEESE. WHITE-FRONTED GEESE. EMPEROR GEESE. NESTING AREA. SEASONALITY. POPULATION LEVELS. PREFERENCES.
We mostly have Canada and white-fronted geese. We have some emperor geese. They nest on the Goodhope River. We see them in the spring and fall. I mostly like to hunt and eat Canadian geese. I hunt mostly in the spring and some in the fall. It seems like there are not as many geese as before, of all kinds.
CODE[110-32-010699

DEERING. BRANT. NESTING AREA. NATURAL HISTORY.
Brants nest at Goodhope River. They started nesting there. They used to nest at Lane River. We see them in smaller bunches, not big flocks. They build their nests on islands. This year they hardly passed through at all. We're landlocked here because of the ice at that time of year and it is sometimes hard to get them.
CODE[110-32-010699

DEERING. SNOW GEESE. POPULATION LEVELS.
Snow geese pass by in the springtime. There are not as many as there used to be. We see them in small bunches. They don't nest here.
CODE[110-32-010699

DEERING. OWL.
I started seeing horned owls lately. I didn't know we had owls around here.
CODE[110-32-010699

DEERING. CACKLING CANADA GEESE.
Cackling Canada geese are probably the ones that fly fast like brant. They are small like brant. I haven't seen them in 15 years. They didn't nest around here. I don't know why they haven't been around.
CODE[110-32-010699

DEERING. PINTAIL. WIGEON. MALLARD. SHOVELER. SCAUP. CANVASBACK. NESTING. SEASONALITY. POPULATION LEVELS.
We have all these ducks—pintails, wigeons, mallards, shovelers, scaup, even some canvasbacks. All of them nest around here. We used to not get any canvasbacks at all around here. It seems like there are more mallards nowadays. I mostly hunt ducks in the fall, geese in the springtime.
CODE[110-32-010699

DEERING. OLDSQUAW. HARLEQUIN. PREFERENCES.
We have ahaaliqs [oldsquaws] and harlequins. Harlequins nest up the river. They're found on the ocean, too. They taste better than oldsquaws.
CODE[110-32-010699

DEERING. COMMON EIDER. KING EIDER. SPECTACLED EIDER. NATURAL HISTORY.
Common eiders sometimes never migrate in the fall and end up freezing to death. There can be hundreds in one bunch. They keep one little water hole open until they freeze to death. That would be November and December. We used to ride up on a snowmachine to their hole. No king eiders around here. A few of those spectacled eiders pass by in the springtime. Those are the smaller ones.
CODE[110-32-010699

DEERING. SURF SCOTER. BLACK SCOTER.
Surf scoters and black scoters are a falltime bird. People like to eat them.
CODE[110-32-010699

DEERING. LOON.
There's no loon hunting here. Sometimes loons get caught in fishing nets, but not other kinds of ducks.
CODE[110-32-010699

DEERING. EGGING. MURRE EGGS. GEESE EGGS. DUCK EGGS. GULL EGGS.
I don't like to collect eggs on the cliffs. Scared of heights. I just hold the rope. We get duck eggs sometimes. We don't get geese eggs. They taste like perfume or something. We get lots of gull eggs. We get them early. They are the first ones to lay eggs.
CODE[110-32-010699

DEERING. PUFFIN. EGGS.
People don't go for puffin eggs so much. People don't eat puffins but the old folks like them.
CODE[110-32-010699

DEERING. SPRUCE GROUSE.
We get some grouse but not that much. I saw one grouse this summer.
CODE[110-32-010699

DEERING. SNOWY OWL. SEASONALITY.
I saw one snowy owl three days ago. We see them in the winter mostly. I don't know where they go in summer. I saw another one a couple months ago.
CODE[110-32-010699

DEERING. BLACK GUILLEMOT.
There are no black guillemots around here.
CODE[110-32-010699

DEERING. SANDHILL CRANE. POPULATION LEVELS. BEHAVIOR.
We have lots of cranes, but not as much as there used to be. We get them in falltime. Any one is good, not just the young ones. Cranes can poke you and attack you. They'll chase you. Even my dog is afraid of them.
CODE[110-32-010699

DEERING. TUNDRA SWAN. POPULATION LEVELS. PREFERENCES.
Tundra swans seem stable in population. They are not going up in number. They are not that good of eating. I got a swan permit but I never filled it.
CODE[110-32-010699

DEERING. EGGING METHODS.
My brother used to climb. They climbed those rocks for eggs. I didn't like to climb. I waited in the boat. When my brother got his leather packsack full of eggs, he lowered it down to us with a rope. I untied it and filled up the tub in the boat, then sent the packsack up again.
CODE[110-35-010799

DEERING. HISTORY. NATURAL HISTORY.
We used to live on the other side of the bluff. There was a kind of rock beach, round rocks. From the water action. A couple of years ago I went down there. There is a lot of sand there now. From the wave action I suppose. We used to go down there in the springtime. We would go fix our camp while dog teams could travel. There's no river down there, just a beach.
CODE[110-35-010799

DEERING. KITTIWAKE. MURRE. PUFFIN. POPULATION LEVELS. HUNTING METHODS.
All these bluffs along the coast are full of crowbills, seagulls. As long as there is fish in the water. There are different kinds of birds. On one side of the bluff there are puffins. Puffins are at 9-Mile, too. Crowbills are good to eat. We would just shoot them. In the old days we'd be running out of meat at that time of year and they'd be good. It seems like these birds are getting fewer in number. When we used to go to the graveyard in May, they used to be so noisy. Now there is not so much noise.
CODE[110-35-010799

DEERING. CHAMISSO ISLAND. EGGING.
Choris Island is a rock sticking out of the water. It's not too steep and easy to climb. But I've never been there.
CODE[110-35-010799

DEERING. EGGS. PRESERVATION. OLD DAYS.
People used to hardboil eggs, then put them in seal oil or reindeer fat. The oil hardens and seals them. As long as it's not warm. It can't be warm. Actually I've never tried it, but I've heard people talk.
CODE[110-35-010799

DEERING. OLDSQUAW. POPULATION LEVELS. SCOTER.
There used to be ahaaliqs [oldsquaws] at the mouth of the river but not any more. I miss hearing them. I don't know what happened. There also used to be a lot of black ducks but these are not around any more. Things are changing so fast now. Not like when we were growing up.
CODE[110-35-010799

DEERING. CAPE ESPENBERG. NATURAL HISTORY. DOG FOOD.
We used to dog team down to Espenberg. That's where the tide opens up cracks in the ice. We used to go there for dog food. We used to dry it. There was lots of dog food. In the springtime your dog team goes along pretty good. But in winter it took about two days to get to Espenberg. In springtime you could make it in one day.
CODE[110-35-010799

DEERING. EIDER EGGS. NESTING AREA. MOLTING. SEASONALITY. HUNTING METHODS.
There are eider duck eggs at Lane River. That's quite a ways down there. I don't know how many miles. There are lots of seals down there. Lots of ducks in the falltime. There are lots of molting ones that can't fly. You can drive them around like a flock of reindeer there's so many molting ducks. You can chase them and club them.
CODE[110-35-010799

DEERING. EIDER. MERGANSER.
We have lots of eider ducks and fish ducks.
CODE[110-35-010799

DEERING. GEESE. DUCKS. PRESERVATION.
When I was growing up, we used to eat birds as fresh meat. We didn't stack up food. We have freezers now and we put some birds in the freezer.
CODE[110-35-010799

DEERING. HISTORY. MINING. ECONOMY.
Deering used to be quite a mining town. Four different dredges were operating up the river. One outfit just did hydraulic mining. Water from the top of the hills came down in a pipeline. By the time it got down there it had a lot of pressure. It could really move dirt. I washed dishes for them one time. Once I walked down to where they were working. My brother was working there, too. They had a nozzle with water coming out. My brother had told me that you couldn't even stick a knife in there. I didn't believe it. So I put my hunting knife through there, through the water. The knife flew out of my hand! They moved the nozzle and I went to look for my knife and finally found it.

We left Deering in 1943. When the war started there was no more work around here. The mining company couldn't buy fuel or food to run their camp. First I went to Nome and found defense work. I sent for my family. There was lots of work around Nome until 1947. I thought I should work in town at a place that sold international trucks and tractors. That company had another place in Fairbanks, so they sent me over there.

There's no mining now in Deering. There hasn't been in quite a few years. People hang on to their ground but there's no mining now. People hang on to their property because they don't want to lose it. They go camping once in awhile but as far as gold mining there isn't any. I took care of Utica camp three or four years or longer. Cooked for them in summer, camp watched in winter.
CODE[110-35-010799

DEERING. TRAVEL ROUTE. DOG TEAM. KOTZEBUE. CHORIS PENINSULA. BALDWIN PENINSULA.
In the early days we used to dogteam across to Choris, then across the peninsula to Arctic, then to Riley Wreck, then head to town. It used to take two days to dogteam to Kotzebue in winter. In spring it was a one-day run.
CODE[110-35-010799

DEERING. POLAR BEAR. SEAL. WALRUS. NATURAL HISTORY.
When I was growing up, once in awhile people would see polar bears out there. This is just a bay here. Polar bears have to be out more in the ocean. Just a big bay here with a 20 or 30 mile opening. There are always a lot of seals there – all kinds. We don't get walrus too often.
CODE[110-35-010799

DEERING. CANADA GEESE. WHITE-FRONTED GEESE. CACKLING CANADA GEESE. POPULATION LEVELS. NESTING.
Lesser Canada and white-fronted geese are the most common. We see a lot of big Canada geese but not small ones [cackling]. Canada geese are about the same in

number. It kind of averages out with the foxes and everything else. There are lots of foxes. There are more white-fronted geese now, I think. They start flying in big flocks with their young. They nest on the next river to the east. They nest more inland along creeks and rivers.
CODE[110-34-010799

DEERING. EMPEROR GEESE. POPULATION LEVELS. PREFERENCES. NESTING AREA. KIWALIK RIVER. NATURAL HISTORY.
Emperor geese we see once in awhile in spring and fall. Mostly they just pass by. They are about the same in number. Emperors taste like clams. That's why I don't get that many. Little butter clams is what they like to eat. Lots wash up on the beach to the east. There is one big island by Kiwalik where emperor geese nest. Right along the beach where they feed on clams. They get real big in falltime, like big Canadian geese.
CODE[110-34-010799

DEERING. BRANT. POPULATION LEVELS. NESTING AREA.
Once in awhile we get brants. There were more last year than the year before. They are even back here behind town. Their numbers are really increasing. They nest on islands in Twin Lakes [Killeak Lakes on map] between Lane River and Espenberg. There is a big marsh down there. They nest there by the thousands.
CODE[110-34-010799

DEERING. HUNTING AREA. WEATHER. GOODHOPE RIVER. KIWALIK RIVER. HUNTING METHODS.
Where we go to hunt depends on the weather. We go either to the east or to the west, as far as Goodhope or Kiwalik. There are lots of places with big tall grass. You don't even have to make a blind. Elders showed us long ago where the good places are. Geese really like that tall grass. Maybe it looks like corn stalks.
CODE[110-34-010799

DEERING. MURRELET. NORTHERN FULMAR. STORM-PETREL. NATURAL HISTORY. POPULATION LEVELS.
We've been seeing murrelets. We never used to see them. They are real small, the size of a snipe. We see a lot of those in the ocean especially in springtime. We've also been seeing northern fulmars in summer. We never used to see those. We've started seeing Leach's storm-petrel in summertime. They eat little fish. We have lots of cigarfish. Maybe these birds are moving up here because they are starting not to have fish farther south.
CODE[110-34-010799

DEERING. WOODPECKER.
We have woodpeckers up there in the hills. Quite a ways up. Three-toed woodpeckers.
CODE[110-34-010799

DEERING. SNOW GEESE. NESTING AREA. NATURAL HISTORY.
A flock of snow geese is nesting over by Kiwalik and near Cape Espenberg. Lots of places where they nest is on islands. They nest on little islands in lakes or near the tip of Espenberg. You can't reach the nests because the lakes are too deep. On the ocean side you can only get to the nests at high tide, not low. Snow geese leave kind of late in the fall.
CODE[110-34-010799

DEERING. CANADA GEESE EGGS. SNOW GEESE EGGS. BRANT EGGS. GULL EGGS.
We find Canada geese eggs once in awhile. But not snow geese or brant. We get a lot of big seagull eggs.
CODE[110-34-010799

DEERING. EGGING. EGGING AREAS. EGGING METHODS. CAPE DECEIT. NATURAL HISTORY.
People climb for eggs at Sullivan Bluffs. Young guys climb with no rope, but I have to have a rope. At Cape Deceit, the rock is too soft and we don't let people climb there anymore. A couple guys got hit by rocks one year. We had to take one guy off with a stretcher. It used to be a good place years ago, but it's starting to fall in. We think the rock might be drying out and crumbling.
CODE[110-34-010799

DEERING. EGGING AREAS. MURRE. PUFFIN. KITTIWAKE. CORMORANT. NATURAL HISTORY.
Sometimes I climb at Seagull Island [east of Toawlevic Point]. It has crowbills, puffins, and gulls. There are cormorants along the coast. They're kind of a smelly bird with oily feathers. That's why they are always cleaning their feathers.
CODE[110-34-010799

DEERING. WHITE-FRONTED GEESE. CANADA GEESE. NESTING AREA.
Gull Island in Imuruk Lake is full of nesting white-fronted and Canada geese. The National Park Service did a bird count there one time. There were so many nests that people had to watch where they stepped.
CODE[110-34-010799

DEERING. COMMON EIDER. KING EIDER. SPECTACLED EIDER. SEASONALITY. NESTING AREA. POPULATION LEVELS. NATURAL HISTORY.
Mostly we get common eiders. Once in awhile we see king eiders. We never see spectacled eiders. We mostly see eiders after the ice breaks up in May and June. We see them in small flocks in the springtime and big flocks in the falltime. We run into flocks out there when we are seal hunting in the fall. They nest on islands at Goodhope River and at the head of Kugruk Lagoon. Common eiders are up in population. We hunt them in the springtime, but in the falltime they are pretty smelly with clams. They eat those blue clams and snails. Eiders stay around late, even when it starts freezing up.
CODE[110-34-010799

DEERING. MURRE. NESTING AREA. POPULATION LEVELS. POLLUTION.
Crowbills seem to be increasing. They are nesting every place where there is a cliff on the west side. We see them on bluffs where we never used to see them. We saw lots of dead crowbills and seagulls on the bluffs the year of the Exxon Valdez oil spill.
CODE[110-34-010799

DEERING. PUFFIN. TUFTED PUFFIN. POPULATION LEVELS. NESTING. SEAGULL ISLAND.
Puffins are about the same in number. But we see more of the orange puffins [tufted] than we used to. Tufted puffins burrow into soft mud and rock. If you try to get eggs, they bite you and don't let go. The little island east of Toawlevic Point has tufted puffins.
CODE[110-34-010799

DEERING. SANDHILL CRANE. TUNDRA SWAN. PREFERENCES. PROCESSING. DIVISION OF LABOR. NATURAL HISTORY.
I go after cranes in the springtime. But swans are getting too tough. Some of them are getting pretty old. Swans pair off and nest in lakes up here. Swans are also hard to pluck. All birds are easier to pluck out there when they are warm. It's not necessarily women's work to pluck them. If you bring them home without plucking them, you end up skinning them.
CODE[110-34-010799

DEERING. LOON.
Once in awhile we catch loons in nets, chasing fish. But not other birds. We see lots of salmon with scars from seals.
CODE[110-34-010799

# Bird Harvests in Kiana, November 1993 through October 1994

**Results of a Cooperative Project by the**
**Division of Subsistence, Alaska Department of Fish and Game, in cooperation with**
**Maniilaq Assoc., the Kiana Traditional Council, and the U.S. Fish and Wildlife Service**
**April 1995**

## Introduction

Birds are important to families in northwest Alaska. They are an important part of the culture and traditional way of life of Alaska Natives. Birds and bird eggs are eaten for food, and feathers are used in hand-crafted items. This report presents information on bird harvests in Kiana during November 1993 through October 1994. The information are results from a cooperative project in 1994-95.

## The Project

Several groups worked together on the project to gather information on birds at Kiana. The Kiana Traditional Council approved the project by resolution (94-80) on September 8, 1994. A survey of households was done by a local researcher hired and supervised by Maniilaq. The project was designed by the Division of Subsistence, Alaska Department of Fish and Game, who also put the information into tables and into this report. Money for the project was given by the U.S. Fish and Wildlife Service. Preliminary results were reviewed by Maniilaq and the Division of Subsistence, ADF&G.

## How the Information Was Collected

A survey was used to gather information on bird harvests. Surveys were done in 49 of 104 households (47.1 percent) in Kiana. Also, three bird experts from Kiana were interviewed about bird ecology and traditional uses of birds. Surveys were done between December 11, 1994 and February 28, 1995 in Kiana. On the survey, people were asked about bird hunting during the 12-month period, November 1993 through October 1994. To protect confidentiality, no person's name will be used in any reports of the information, unless that person gives permission to do so.

## Findings

During the 12-month period, November 1993 through October 1994, based on a sample of 49 households in Kiana, it is estimated that:

- Almost two thirds of the households used birds (66 households or 63.8 percent) (see Fig. 4).
- Almost half of all households had bird hunters (49 households or 46.9 percent) (see Fig. 4).
- Sharing of birds was common -- a third of the households (36 households or 34.7 percent) reported giving birds to other households, and almost half of the households (49 households or 46.9 percent) reported receiving birds from other households (see Fig. 4).
- At least 17 kinds of birds were harvested -- white-fronted geese, emperor geese, cackling Canada geese, lesser Canada geese, snow geese, black brant, northern pintail, American wigeon, mallard, oldsquaw, black scoter, surf scoter, common loon, willow ptarmigan, and grouse (see Table 1).
- About 1,080 birds were harvested by households in Kiana during the 12-month period, November 1993-October 1994 (see Table 1).
- The top five birds in numbers harvested during the 12-month period were lesser Canada geese (225 birds), American wigeon (214 birds), northern pintail (191 birds), willow ptarmigan (166 birds), and mallard (64 birds) (see Table 1).

- Birds were taken in spring (80.2 percent), fall (7.3 percent), and winter (13.4 percent); the season was not known for some birds (0.2 percent) (see Fig. 3).

- While most birds are hunted in spring, some wigeons and a few pintail were also taken in the fall. Most ptarmigan were taken in winter, but a few were also taken in the spring. (see Table 1).

- The survey may have missed some bird eggs harvested in Kiana. Additional key respondent and survey work would help provide more complete information on historic and contemporary patterns of egg use.

- The classifications of Canada geese harvests into "cackling Canada" or "lesser Canada" by hunters are uncertain because of the close resemblance of the two species and the difficulties distinguishing them with the illustrations in the colored bird guide used in the survey. Additional work documenting harvested birds and bird classification systems would help to clarify this issue.

- The information on bird harvests are shown in detail in Table 1 and Figures 1-4.

- Information from hunting experts about birds and bird hunting in the Kiana area are attached as an appendix.

**Computerized Data Files**

This information is available as computer files at Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752 (907-443-5231) or the Division of Subsistence, Alaska Department of Fish and Game, Box 3-2000, Juneau, Alaska 99802 (907-465-4147). Information requests can be made from either group.

**Acknowledgments**

A thank you is given to all the households and bird hunting experts who graciously volunteered to be surveyed on the project. A special thanks is given to Art Ivanoff of Maniilaq, who supervised data collection; Elmer Jackson of Kiana, who conducted the household surveys; Amy Paige of the Division of Subsistence, ADF&G, who trained surveyors, interviewed expert hunters, and analyzed data; and the Kiana Traditional Council, who gave support to the project.

# Table 1. KIANA
## Bird Harvests, November 1993 - October 1994[1]

| Bird Species | | Total Harvests | | Bird Harvest By Season[2] | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Birds | Eggs | Winter | Spring | Summer | Fall | nknown |
| Geese | White-fronted Geese | 45 | | | 45 | | | |
| | Emperor Geese | 11 | | | 11 | | | |
| | Cackling Canada Geese [3] | 13 | | | 13 | | | |
| | Lesser Canada Geese [3] | 225 | | | 225 | | | |
| | Canada Geese Unknown | | | | | | | |
| | Snow Geese | 19 | | | 19 | | | |
| | Black Brant | 8 | | | 8 | | | |
| Ducks | Northern Pintail | 191 | | | 185 | | 6 | |
| | American Wigeon | 214 | | | 142 | | 70 | 2 |
| | Mallard | 64 | | | 64 | | | |
| | Northern Shoveler | | | | | | | |
| | Greater Scaup | | | | | | | |
| | Lesser Scaup | | | | | | | |
| | Canvasback | | | | | | | |
| | Green-winged Teal | | | | | | | |
| | Common Merganser | | | | | | | |
| | Red-breasted Merganser | | | | | | | |
| | Bufflehead | | | | | | | |
| | Harlequin | | | | | | | |
| | Oldsquaw | 40 | | | 40 | | | |
| | Common Goldeneye | | | | | | | |
| | Black Scoter | 57 | | | 57 | | | |
| | Surf Scoter | 8 | | | 8 | | | |
| | White-winged Scoter | | | | | | | |
| | Common Eider | | | | | | | |
| | King Eider | | | | | | | |
| | Spectacled Eider | | | | | | | |
| | Steller's Eider | | | | | | | |
| | Ducks Unknown | 13 | | | 13 | | | |
| Seabirds | Common Loon | 2 | | | 2 | | | |
| | Arctic Loon | | | | | | | |
| | Red-throated Loon | | | | | | | |
| | Yellow-billed Loon | | | | | | | |
| | Common Murre | | | | | | | |
| | Thick-billed Murre | | | | | | | |
| | Unknown Murre | | | | | | | |
| | Black Guillemot | | | | | | | |
| | Sabine's Gull | | | | | | | |
| | Mew Gull | | | | | | | |
| | Glaucous Gull | | | | | | | |
| | Unknown Gull | | | | | | | |
| | Arctic Tern | | | | | | | |
| | Auklets | | | | | | | |
| | Puffins | | | | | | | |
| | Other Seabirds | | | | | | | |
| Shorebirds | Plover | | | | | | | |
| | Common Snipe | | | | | | | |
| | Other Shorebirds | | | | | | | |
| Game Birds | Willow Ptarmigan | 166 | | 144 | 21 | | | |
| | Rock Ptarmigan | | | | | | | |
| | Grouse | 2 | | | | | 2 | |
| Snowy Owl | | | | | | | | |
| Sandhill Crane | | | | | | | | |
| Tundra Swan | | 2 | | | 2 | | | |

[1] Based on a random survey of 49 of 104 households, expanded to all households. Data were collected by a local researcher on contract with Maniilak, through a cooperative agreement between ADFG, Division of Subsistence and Maniilak. Research was approved by resolution of the Kiana Traditional Council. Project funded by USFWS.

[2] Winter=Nov, Dec, Jan, Feb; Spring=Mar, Apr, May; Summer = Jun, Jul; Fall=Aug, Sep, Oct

[3] The classifications of Canada geese harvests into "cackling Canada" or "lesser Canada" by hunters are uncertain because of the close resemblance of the two species and the difficulties distinguishing them with the illustrations in the colored bird guide used in the survey.

SOURCE: Alaska Department of Fish and Game, Division of Subsistence, and Maniilak, Household Survey, 1994.

# KIANA
## Bird Harvest Patterns
## November 1993 - October 1994

Fig. 1 **Kiana Bird Harvests, November 1993 - October 1994, by Bird Type**

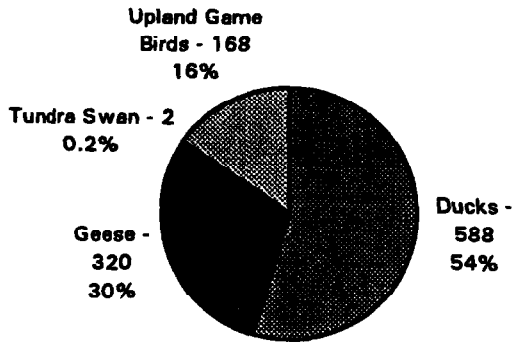



Fig. 2 **Kiana Egg Harvests, November 1993 - October 1994, by Bird Type**

No egg harvest recorded during the study period by sampled households.

Fig. 3 **Kiana Bird Harvests, November 1993 - October 1994, by Season**

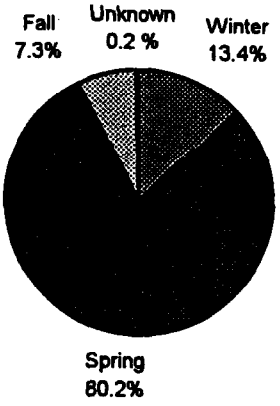
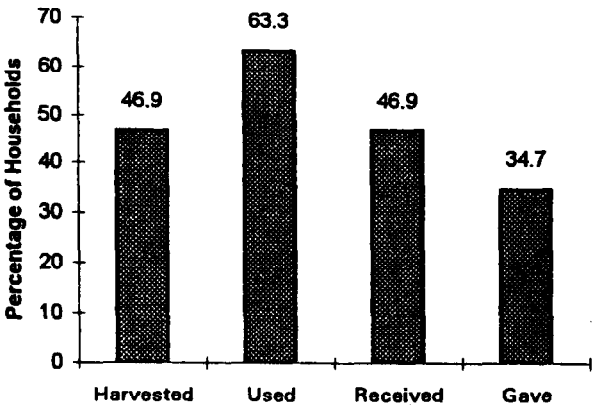



Fig. 4 **Percentage of Kiana Households that Harvested, Used, Received, or Gave Birds, Nov. 1993 - Oct. 1994**




SOURCE: Alaska Department of Fish and Game, Division of Subsistence, and Maniilak, Household Survey, 1994.

# BIRD HUNTING IN KIANA, ALASKA

## November 1996 through October 1997

Results of a cooperative project by Maniilaq Association
and the Division of Subsistence, Alaska Department of Fish and Game,
funded by the U.S. Fish and Wildlife Service
March 1998

**Introduction**

Birds are important to families in northwest Alaska. They are an important part of the culture and traditional way of life of Alaska Natives. Birds and bird eggs are eaten for food, and feathers are used in hand-crafted items. This report presents information on bird hunting and harvests in Kiana for a 12-month period (November 1996-October 1997). The information results from a cooperative project between Maniilaq Association and the Alaska Department of Fish and Game.

**The Project**

Several groups worked together on the project to gather information on birds at Kiana. The Kiana Traditional Council approved the project by resolution. A survey of households was done by a local researcher hired and supervised by Maniilaq Association. The project was designed by the Division of Subsistence, Alaska Department of Fish and Game, who also put the information into tables and into this report. Money for the project came from the U.S. Fish and Wildlife Service. Preliminary results were reviewed by Maniilaq and the Division of Subsistence, ADF&G.

**How the Information Was Collected**

A survey was used to gather information on bird harvests. Surveys were done in 53 randomly selected households of a total of 107 households (50 percent) in Kiana. Surveys were done in December 1997. On the survey, people were asked about bird hunting during the 12-month period, November 1996 through October 1997. Participation in the survey was voluntary. To protect confidentiality, no person's name is used in any reports of the information.

**Findings**

Households in Kiana reported the following things about their use of birds and eggs in the 12-month period:

- Most households (69.8 percent) used birds (see Fig. 4).
- About one-third of households (34.0 percent) hunted birds (see Fig. 4).
- More than one-half of households received birds from other families, while 17.0 percent of households gave birds to others (see Fig. 4).
- At least 17 kinds of birds were caught – white-fronted geese, cackling and lesser Canada geese, snow geese, brant, northern pintail, American wigeon, mallard, northern shoveler,

greater and lesser scaup, green-winged teal, oldsquaw, black scoter, white-winged scoter, willow ptarmigan, and spruce grouse (see Table 1).

- An estimated 1,145 birds were caught by households in Kiana during the 12-month study period.

- The five kinds of birds caught in greatest numbers were lesser Canada geese (204 birds), mallard (192 birds), willow ptarmigan (184 birds), northern pintail (168 birds), and spruce grouse (87 birds) (see Table 1). These five kinds accounted for about 73 percent of all the birds caught by Kiana hunters.

- Most birds were caught in spring (87.4 percent), with ptarmigan and grouse caught in fall and winter (see Fig. 3).

- The classifications of Canada geese harvests into "cackling Canada" or "lesser Canada" by hunters are uncertain because of the close resemblance of the two species and the difficulties distinguishing them in the colored bird guide used in the survey.

- None of the interviewed households gathered eggs during the study year.

**Computerized Data Files**

This information is available as computer files at Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752 (907-442-3311) or the Division of Subsistence, Alaska Department of Fish and Game, Box 3-2000, Juneau, Alaska 99802 (907-465-4147). Information requests can be made from either group.

**Acknowledgments**

A sincere thank-you is given to all households and hunters who generously agreed to be surveyed or interviewed for this project. A special thanks is given to Art Ivanoff of Maniilaq Association, who obtained IRA approvals, hired community assistants, and supervised data collection; Ted Smith of Kiana, who conducted the household surveys; Susan Georgette of the Division of Subsistence, ADF&G, who trained surveyors, interviewed hunters, and wrote the report; and the Kiana Traditional Council, who supported the project.

# Table 1. KIANA
# Bird Harvests, November 1996-October 1997[1]

| Bird Species | | Total Harvests | | Bird Harvest By Season[2] | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Birds | Eggs | Winter | Spring | Summer | Fall | Unknown |
| **Geese** | White-fronted Geese | 57 | | | 57 | | | |
| | Emperor Geese | | | | | | | |
| | Cackling Canada Geese | 10 | | | 10 | | | |
| | Lesser Canada Geese | 204 | | | 204 | | | |
| | Snow Geese | 12 | | | 12 | | | |
| | Brant | 50 | | | 50 | | | |
| **Ducks** | Northern Pintail | 168 | | | 168 | | | |
| | American Wigeon | 18 | | | 18 | | | |
| | Mallard | 192 | | | 192 | | | |
| | Northern Shoveler | 4 | | | 4 | | | |
| | Greater Scaup | 12 | | | 12 | | | |
| | Lesser Scaup | 4 | | | 4 | | | |
| | Canvasback | | | | | | | |
| | Green-winged Teal | 14 | | | 14 | | | |
| | Common Merganser | | | | | | | |
| | Red-breasted Merganser | | | | | | | |
| | Bufflehead | | | | | | | |
| | Harlequin | | | | | | | |
| | Oldsquaw | 69 | | | 69 | | | |
| | Common Goldeneye | | | | | | | |
| | Black Scoter | 10 | | | 10 | | | |
| | Surf Scoter | | | | | | | |
| | White-winged Scoter | 50 | | | 50 | | | |
| | Common Eider | | | | | | | |
| | King Eider | | | | | | | |
| | Spectacled Eider | | | | | | | |
| | Steller's Eider | | | | | | | |
| **Loons** | Common Loon | | | | | | | |
| | Pacific (Arctic) Loon | | | | | | | |
| | Red-throated Loon | | | | | | | |
| | Yellow-billed Loon | | | | | | | |
| **Seabirds** | Common Murre | | | | | | | |
| | Thick-billed Murre | | | | | | | |
| | Black Guillemot | | | | | | | |
| | Sabine's Gull | | | | | | | |
| | Mew Gull | | | | | | | |
| | Glaucous Gull | | | | | | | |
| | Arctic Tern | | | | | | | |
| | Auklets | | | | | | | |
| | Puffins | | | | | | | |
| | Pelagic Cormorant | | | | | | | |
| **Shorebirds** | Plover | | | | | | | |
| | Common Snipe | | | | | | | |
| **Game Birds** | Willow Ptarmigan | 184 | | 57 | 127 | | | |
| | Rock Ptarmigan | | | | | | | |
| | Spruce Grouse | 87 | | | | | 87 | |
| **Snowy Owl** | | | | | | | | |
| **Sandhill Crane** | | | | | | | | |
| **Tundra Swan** | | | | | | | | |
| **TOTAL** | | **1,145** | | **57** | **1,001** | | **87** | |

[1] Based on a random sample of 53 of 107 households, expanded to all households. Data were collected by a local researcher on contract with Maniilaq Association, through cooperative agreements between ADFG, Division of Subsistence, Maniilaq Association, and US Fish and Wildlife Service. Research was approved by resolution of the Kiana Traditional Council. Project funded by USFWS.

[2] Winter=Nov, Dec, Jan, Feb; Spring=Mar, Apr, May; Summer=Jun, Jul; Fall=Aug, Sep, Oct.

SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1997.

# KIANA
## Bird Harvest Patterns
## November 1996-October 1997

Fig. 1 **Kiana Bird Harvests, November 1996-October 1997, by Bird Type**

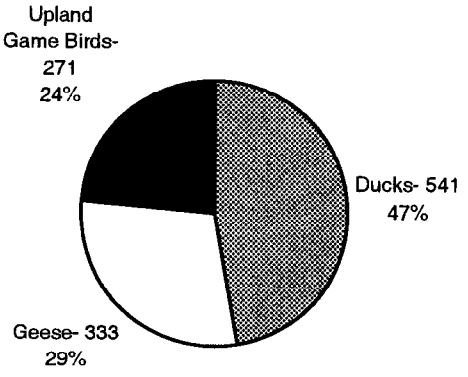



Fig. 2 **Kiana Egg Harvests November 1996-October 1997, by Bird Type**

No egg harvest recorded during the study period by sampled households.

Fig. 3 **Kiana Bird Harvests, November 1996-October 1997, by Season**

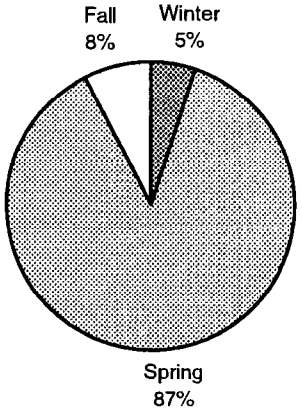
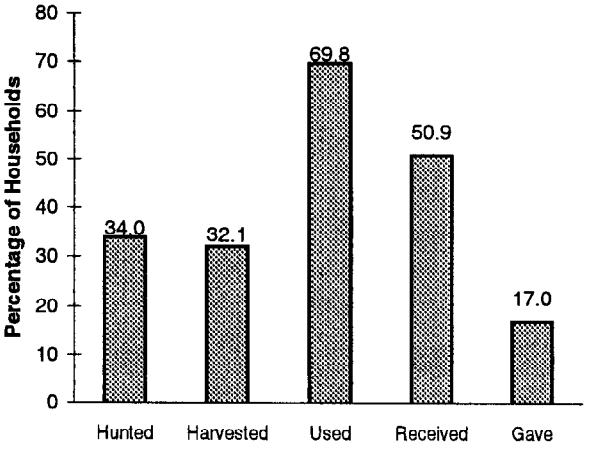



Fig. 4 **Percentage of Kiana Households that Hunted, Harvested, Used, Received, or Gave Birds, 1996**




SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1997.

# Migratory Bird Key Respondent Notes, 1994
# Kiana
## Researcher: Amy Paige

KIANA. GEESE. MIGRATION. POPULATIONS
Black Brant travel over the area, flying high. See them around the middle part of May. White-fronted and Lesser Canadas come in flocks of about 30-40. Don't see any Cacklers. The Snow Geese arrive right after the White-fronteds and Lessers - about a week later. Snow Geese never nest right around here.
CODE[187-52-121494

KIANA. WHITE-FRONTED GEESE. LESSER CANADA GEESE
The White-fronted and Lesser Canada geese use the lakes all around. They eat the grass. It is 2-3 weeks after they arrive before they start nesting. We go up the Squirrel River by snow machine, for hunting. Uses grass and snow as blind. Also uses commercial decoys.
CODE[187-52-121494

KIANA. PINTAILS. OTHER DUCKS.
There are flocks of Pintails in all the lakes around here - flocks of 30-40. Also plenty of widgeons, and mallards in pairs. There are Shovelers, but people don't get too many of those. Oldsquaws fly in bunches, but don't nest around Kiana. We see pairs of green-winged teal. Surf scoters fly in bunches - they are the latest, along with the Oldsquaw to arrive - last part of May. They don't see them in the fall. There are Common Loon down around Noorvik. There are both willow and rock ptarmigan around Kiana.
CODE[187-52-121494

KIANA. FALL MIGRATION
The White-fronteds start to gather up in August. By September you notice flocks of them when out caribou hunting. By the end of September the geese are gone. Widgeons about the last to leave. Mallards fly south in flocks.
CODE[187-52-121494

KIANA. CUSTOMARY RULES.
Take what you can eat. Sharing is important. Sharing with elders.
CODE[187-52-121494

KIANA. PINTAILS. SHOVELERS.
The most abundant ducks in the area are Pintails. They are the earliest to arrive, in early May, even when the ice is still present. They come to the lakes in flocks of 100 or more. They eat grass roots and sprouts. There are even more down around Buckland. Pintails start laying eggs by the end of May. Blue bills or Shovelers come later than the Pintails.
CODE[187-47-121394

KIANA. PINTAILS. HUNTING STRATEGY. BLINDS
Hunt up the Squirrel River; used to use dogs/sleds. Make blinds with grasses and willows, as well as snow. You need a kayak to get out to the islands in the lakes where

the ducks make their nests and lay their eggs. Respondent hasn't done it, just heard about it from elders. One time he tried to get out there, but couldn't. Old people used to tell stories about that.
CODE[187-47-121394

KIANA. SNOW GEESE
There used to be lots of Snow Geese up in the lake above the Squirrel River. There are hardly any there now. They seem to travel along the coast now.
CODE[187-47-121394

KIANA. WHITE-FRONTED GEESE. LESSER CANADA GEESE. POPULATION LEVELS. MIGRATION. HABITAT
The Whited-fronted and Lesser Canada geese all arrive about early May. They don't nest around here - they go somewhere else - up to the head of the Squirrel River probably. Respondents says he sees lots of young ones up the Squirrel River. When they're young "we don't bother them". Hunting stops around last part of May, early June. Populations of both kinds of geese is still the same.
CODE[187-47-121394

KIANA. BLACK BRANT. MIGRATION
Respondent indicates they see Black Brant flying high over head, passing over. He has seen flocks of Brant numbering in the thousands, passing over all day long. they go through Kobuk Lake and stop in the lakes south between Kiana and Noorvik.
CODE[187-47-121394

KIANA. HUNTING METHODS
Respondent doesn't hunt much now. He gives shells and shotgun (32) to his grandson
CODE[187-47-121394

KIANA. CUSTOMARY RULES
Don't waste; don't throw away what you get.
CODE[187-47-121394

KIANA. GENERAL HUNTING. PRESENT DAY CONDITIONS.
Used to go hunting on foot, walking in August out for caribou. Young people don't do that now. Used to dry the meat, make a raft and float back down river to home. Men have to work (for wages) now and don't have time to take the kids out. Respondent traps for marten and wolverine.
CODE[187-47-121394

KIANA. WHITE-FRONTED GEESE. LESSER CANADA GEESE.
The White-fronted and Lesser Canada geese (with a spot in the cheek) come depending on the weather. If it is cold and wet, they may come a little late. Usually is it around the first week of May, in the spring. Respondent remembers they usually try to have a goose on his birthday - May 7th.
CODE[187-82-121494

KIANA. BLACK BRANT.
The Brant come later, around the last part of May or first week of June. Hardly any stop around Kiana. They may spend a few days by the lake. They come in flocks of more

than 100, in V formation. They fly many miles that way. Even though they are flying very high, it is possible to get some. Once you shoot at them, they dive down, and then you can get them.
CODE[187-82-121494

KIANA. BLACK BRANT. DECOYS. BLINDS
Respondent used decoys of birds already shot. You push stick up the neck of the killed goose. However, foxes try to get these decoys, so you have to watch out carefully. Also uses blinds. In the early spring when the ground is still frozen, you need to stand in the grass - in grassy meadows; bend willow branches and hang dead grass to make a blind. Sometimes we use plastic sheets as a blind - the birds seem to not be able to distinguish hunters behind plastic sheets, as long as it doesn't make a flapping noise.
CODE[187-82-121494

KIANA. SNOW GEESE. HUNTING METHODS
Snow geese fly in flocks, and will dive at you. Respondent uses natural voice calls. If the meadow has enough water the snow geese will land. If there is too much water, they don't stop. If you're out in a boat, you have to watch where you go with the outboard, because the ice is still under the surface.
CODE[187-82-121494

KIANA. SNOW GEESE. SWANS. NESTING HABITS.
By the first week of June, the Snow Geese have eggs. We get eggs before about June 7th. After that the chicks are already forming - last week of May, first week of June. Swans are already sitting on their nests by the end of the first week in June. Have two or three (swans) when they first come. We never hunt too long.
CODE[187-82-121494

KIANA. MOLTING.
In July, the Lesser Canadas are molting. You have to go way up river, or down, to get molting ducks, like Pintails.
CODE[187-82-121494

KIANA. TRADITIONAL HUNTING METHODS.
We used to hunt with kayaks, with grandparents. Used a harpoon - four feet long with rigid wires and a three-pronged barbed hook. Duck won't come off such a hook. we'd paddle up to them when they were molting, and get 10-15 that way - not too many. Shotguns kill more. People don't hunt that way any more.
CODE[187-82-121494

KIANA. OTHER BIRDS.
You can get lots of Pintails down by Kotzebue, along the coast. It's too brushy around Kiana, and the water is low in the lakes. We can get widgeons, teals, Oldsquaw (ahaaliq), scoters.
CODE[187-82-121494

KIANA. LOON. NON-FOOD PRODUCTS.
Showed a loon pouch - about 14" long, made from gutted body of loon - with wings still attached, and a zipper closure along top of back. It was being used for sewing notions. Have seen loon wings used as brooms.

CODE[187-82-121494

KIANA. MEAL PREPARATION/PRESERVATION
To prepare a loon, pluck the loon, take the meat out by inserting a knife between the meat and the fat; leave the fat on the inside, sew up all the openings - the neck, belly, and leg holes, and boil it. It will inflate like a balloon, and the fat liquefies like Wesson oil. Cut the loon skin/fat and put in a bowl and eat with the cooked loon meat. Prepare Mergansers in the same way - both have a taste like seal meat.
CODE[187-82-121494

# BIRD HUNTING IN KIVALINA, ALASKA

## November 1996 through October 1997

Results of a cooperative project by Maniilaq Association
and the Division of Subsistence, Alaska Department of Fish and Game,
funded by the U.S. Fish and Wildlife Service
March 1998

### Introduction

Birds are important to families in northwest Alaska. They are an important part of the culture and traditional way of life of Alaska Natives. Birds and bird eggs are eaten for food, and feathers are used in hand-crafted items. This report presents information on bird hunting and harvests in Kivalina for a 12-month period (November 1996-October 1997). The information results from a cooperative project between Maniilaq Association and the Alaska Department of Fish and Game.

### The Project

Several groups worked together on the project to gather information on birds at Kivalina. The Kivalina IRA Council approved the project by resolution. A survey of households was done by a local researcher hired and supervised by Maniilaq Association. The project was designed by the Division of Subsistence, Alaska Department of Fish and Game, who also put the information into tables and into this report. Money for the project came from the U.S. Fish and Wildlife Service. Preliminary results were reviewed by Maniilaq and the Division of Subsistence, ADF&G.

### How the Information Was Collected

A survey was used to gather information on bird harvests. Surveys were done in 33 randomly selected households of a total of 69 households (48 percent) in Kivalina. Also, three bird hunters from Kivalina were interviewed about bird ecology and traditional uses of birds. Surveys were done in November 1997. On the survey, people were asked about bird hunting during the 12-month period, November 1996 through October 1997. Participation in the survey was voluntary. To protect confidentiality, no person's name is used in any reports of the information.

### Findings

Households in Kivalina reported the following things about their use of birds and eggs in the 12-month period:

- Most households (81.8 percent) used birds (see Fig. 4).
- More than one-half of households (54.6 percent) hunted birds (see Fig. 4).
- Sharing of birds was common. More than one-third of households (39.4 percent) received birds from other families, with the same percentage giving birds to others (see Fig. 4).

- At least eight kinds of birds were caught – white-fronted geese, cackling and lesser Canada geese, brant, mallard, common eider, king eider, and willow ptarmigan (see Table 1).

- At least two kinds of eggs were gathered during the study period – common murre and gull (species unknown).

- An estimated 418 birds were caught by households in Kivalina during the 12-month study period.

- The two kinds of birds caught in greatest numbers were brant (194 birds) and lesser Canada geese (73 birds), accounting for 64 percent of all the birds caught by Kivalina hunters.

- An estimated 1,413 eggs were gathered by households in Kivalina during the 12-month study period (see Table 1).

- Most birds were caught in summer, with some also caught in spring (see Fig. 3).

- The classifications of Canada geese harvests into "cackling Canada" or "lesser Canada" by hunters are uncertain because of the close resemblance of the two species and the difficulties distinguishing them in the colored bird guide used in the survey.

- Information from interviewed hunters about birds in the Kivalina area is attached as an appendix.

**Computerized Data Files**

This information is available as computer files at Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752 (907-442-3311) or the Division of Subsistence, Alaska Department of Fish and Game, Box 3-2000, Juneau, Alaska 99802 (907-465-4147). Information requests can be made from either group.

**Acknowledgments**

A sincere thank-you is given to all households and hunters who generously agreed to be surveyed or interviewed for this project. A special thanks is given to Art Ivanoff of Maniilaq Association, who obtained IRA approvals, hired community assistants, and supervised data collection; Nora Swan of Kivalina, who conducted the household surveys; Susan Georgette of the Division of Subsistence, ADF&G, who trained surveyors, interviewed hunters, and wrote the report; and the Kivalina IRA Council, who supported the project.

# Table 1. KIVALINA
# Bird Harvests, November 1996-October 1997[1]

| Bird Species | | Total Harvests | | Bird Harvest By Season[2] | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Birds | Eggs | Winter | Spring | Summer | Fall | Unknown |
| **Geese** | White-fronted Geese | 29 | | | 6 | 23 | | |
| | Emperor Geese | | | | | | | |
| | Cackling Canada Geese | 31 | | | 6 | 25 | | |
| | Lesser Canada Geese | 73 | | | | 73 | | |
| | Snow Geese | | | | | | | |
| | Brant | 194 | | | 13 | 182 | | |
| **Ducks** | Northern Pintail | | | | | | | |
| | American Wigeon | | | | | | | |
| | Mallard | 8 | | | | 8 | | |
| | Northern Shoveler | | | | | | | |
| | Greater Scaup | | | | | | | |
| | Lesser Scaup | | | | | | | |
| | Canvasback | | | | | | | |
| | Green-winged Teal | | | | | | | |
| | Common Merganser | | | | | | | |
| | Red-breasted Merganser | | | | | | | |
| | Bufflehead | | | | | | | |
| | Harlequin | | | | | | | |
| | Oldsquaw | | | | | | | |
| | Common Goldeneye | | | | | | | |
| | Black Scoter | | | | | | | |
| | Surf Scoter | | | | | | | |
| | White-winged Scoter | | | | | | | |
| | Common Eider | 21 | | | 2 | 19 | | |
| | King Eider | 19 | | | 10 | 8 | | |
| | Spectacled Eider | | | | | | | |
| | Steller's Eider | | | | | | | |
| **Loons** | Common Loon | | | | | | | |
| | Pacific (Arctic) Loon | | | | | | | |
| | Red-throated Loon | | | | | | | |
| | Yellow-billed Loon | | | | | | | |
| **Seabirds** | Common Murre | | 1,286 | | | | | |
| | Thick-billed Murre | | | | | | | |
| | Black Guillemot | | | | | | | |
| | Sabine's Gull | | | | | | | |
| | Mew Gull | | | | | | | |
| | Glaucous Gull | | | | | | | |
| | Unknown Gull | | 128 | | | | | |
| | Arctic Tern | | | | | | | |
| | Auklets | | | | | | | |
| | Pelagic Cormorant | | | | | | | |
| | Other Seabirds | | | | | | | |
| **Shorebirds** | Plover | | | | | | | |
| | Common Snipe | | | | | | | |
| **Game Birds** | Willow Ptarmigan | 42 | | | 42 | | | |
| | Rock Ptarmigan | | | | | | | |
| | Spruce Grouse | | | | | | | |
| **Snowy Owl** | | | | | | | | |
| **Sandhill Crane** | | | | | | | | |
| **Tundra Swan** | | | | | | | | |
| **TOTAL** | | **418** | **1,413** | | **79** | **339** | | |

[1] Based on a random sample of 33 of 69 households, expanded to all households. Data were collected by a local researcher on contract with Maniilaq Association, through cooperative agreements between ADFG, Division of Subsistence, Maniilaq Association US Fish and Wildlife Service. Research was approved by resolution of the Kivalina IRA Council. Project funded by USFWS.

[2] Winter=Nov, Dec, Jan, Feb; Spring=Mar, Apr, May; Summer=Jun, Jul; Fall=Aug, Sep, Oct.

SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1997.

# KIVALINA
## Bird Harvest Patterns
## November 1996 - October 1997

Fig. 1 **Kivalina Bird Harvests, November 1996-October 1997, by Bird Type**

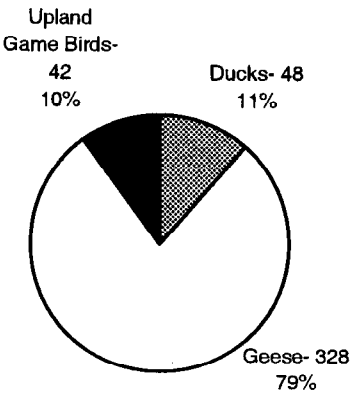



Fig. 2 **Kivalina Egg Harvests, November 1996-October 1997, by Bird Type**

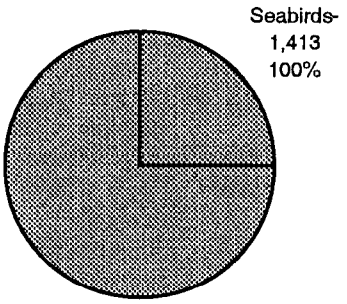



Fig. 3 **Kivalina Bird Harvests, November 1996-October 1997, by Season**

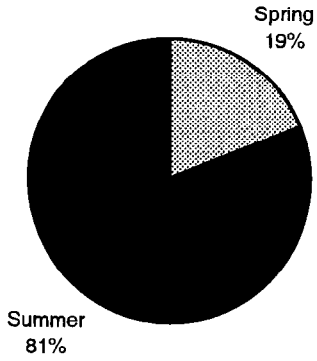
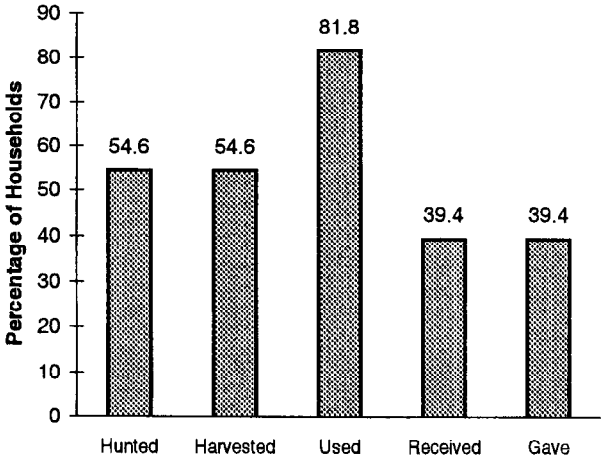



Fig. 4 **Percentage of Kivalina Households that Hunted, Harvested, Used, Received, or Gave Birds, 1996**




SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1997.

# Migratory Bird Field Notes
# Kivalina, Alaska
# November 1997

KIVALINA. CANADA GEESE. WHITE-FRONTED GEESE. SNOW GEESE. MIGRATION. EMPEROR GEESE. SEASONALITY. NESTING.
What goes through here depends on the weather. Canada geese come first. That's what we get the most. Some stay around here all summer. We see yellow-feet [white-fronted] geese, too, but not too many. Snow geese come the same time as Canada geese. Once in awhile we catch them. They go up north someplace to nest. We don't see them in the falltime. We never see emperor geese.
CODE[191-33-111097

KIVALINA. BRANT. NESTING AREA. SEASONALITY. POINT HOPE. MIGRATION.
Brants come later than other geese. They go up north and do not nest around here. Brants run until June, July. People catch them. We don't see them in falltime. I've seen lots in Point Hope, lots going by in the fall, always coming by. When there is a north wind, lots of brant come through that point at Point Hope.
CODE[191-33-111097

KIVALINA. PINTAIL. WIGEON. SHOVELER. MALLARD. SCAUP. SCOTER. NESTING. POPULATION LEVELS.
We have lots of pintails. We have wigeons, shovelers, mallards. Not many mallards. They all nest around here. We have scaups, but not too many of these. We have scoters, but not too many.
CODE[191-33-111097

KIVALINA. RED-BREASTED MERGANSER. COMMON MERGANSER. PREFERENCE.
People say red-breasted merganser have awful meat. But people like common merganser. But we never try to hunt them much, never get them.
CODE[191-33-111097

KIVALINA. OLDSQUAW.
People don't care for aahaaliq [oldsquaw]. But they are real good. Some nest around here.
CODE[191-33-111097

KIVALINA. HARLEQUIN. HABITAT.
We call harlequins "daisy ducks" because they are real pretty. We see them around the coast and the rivers. People get them by mistake but don't really hunt them.
CODE[191-33-111097

KIVALINA. BRANT. SNOW GEESE. CANADA GEESE. PREFERENCE. HUNTING AREAS. WEATHER.
People here mostly like brants, snow geese, Canada geese, all the kinds of geese. We watch for north wind. Birds are always flying low during north wind. In springtime we go back over there [points to east/southeast] to hunt. We go back on the tundra near willows to hunt ducks and geese. My boys hunt a lot. I don't like to hunt ducks and geese unless there are lots. I don't like to hunt when there's not many. I don't like to sit there and wait.
CODE[191-33-111097

KIVALINA. COMMON EIDER. KING EIDER. POINT HOPE. SEASONALITY. SPECTACLED EIDER. STELLER'S EIDER. POPULATION LEVELS.
Eiders are around until freeze-up in November or December. They fly around and look for water. When eiders first come around in springtime, we like them. They taste like seal. Common eiders and king eiders. There always be lots of king eiders flying around at Point Hope. King eiders come in April. Common eiders are around in June, July. Not too many spectacled eider around here. Not too many Steller's eider. They come in June, July. They look like they are burned on the bottom and that's what their Eskimo name is. In the falltime, all the eiders are brown.
CODE[191-33-111097

KIVALINA. MURRE. CAPE THOMPSON. KING EIDER. EGGS. SEASONALITY. MIGRATION.
We have lots of murres up at the bluffs [Cape Thompson]. Billions of them. Murres come with the king eiders in springtime. We get murre eggs in the first part of July.
CODE[191-33-111097

KIVALINA. RED-THROATED LOON. ARCTIC LOON. YELLOW-BILLED LOON. COMMON LOON. NESTING. MEAL PREPARATION.
We have loons, but not too many. They are nesting around here. People eat them when there's no food. Just boil them. We catch them in our fish nets sometimes. We see red-throated loons sometimes. Sometimes we see arctic, yellow-billed, and common loons.
CODE[191-33-111097

KIVALINA. GULL. EGGS.
In the first part of June we get gull eggs.
CODE[191-33-111097

KIVALINA. BLACK GUILLEMOT. CAPE THOMPSON. HORNED PUFFIN. AUKLET. ORAL TRADITIONS.
We have black guillemots down on the cliffs [Cape Thompson]. We call them "preachers." We have a few horned puffins but we don't hunt them. We only have a few auklets when there are open leads. A couple or four of them at a time. There's a story about a man who drifted on the ice for one month. All he had was one auklet to eat. He chewed on it a bit, put it in his pocket, then chewed on it some more. That's all he had to eat for one month. One small bird. After a month, he drifted back.

CODE[191-33-111097

KIVALINA. WILLOW PTARMIGAN. ROCK PTARMIGAN.
We have lots of willow ptarmigan. We have a few mountain [rock] ptarmigan. They make your stomach work good when you eat them. You get hungry really quick after eating them.
CODE[191-33-111097

KIVALINA. SNOWY OWL. HUNTING METHODS. SEASONALITY.
Snowy owls we eat in falltime. We catch them with a trap. You don't need bait. They just land there on the trap. I used to eat snowy owl until I see a movie where they eat mice, then I don't care for them any more. Maybe TV spoil us. Old people like them because they were raised with them. Falltime, now, is when snowy owls pass by. In winter time, not too many.
CODE[191-33-111097

KIVALINA. SANDHILL CRANE. SEASONALITY. WEATHER.
There are not too many cranes. People don't really eat them. They are real good, all right, when they first come around in springtime. They come around in late April. They know north wind, too. After big north wind pass by, ducks and cranes start showing up. They know north wind. It's cold, that's why. Young cranes are yellow.
CODE[191-33-111097

KIVALINA. TUNDRA SWAN. HUNTING PRACTICES. REGULATIONS. NESTING.
There are not too many swans. They got tough meat. Hard to eat if you have no teeth. There is a $500 fine for hunting swans. That was a long time ago, but I think about that. In falltime, swans are in Kotzebue Sound. Only a few nest around here.
CODE[191-33-111097

KIVALINA. DUCKS. GEESE. HUNTING. SEASONALITY.
Hunting for birds is mostly in springtime and falltime. We try to get enough for the summer.
CODE[191-33-111097

KIVALINA. WILLOW PTARMIGAN. ECOLOGY.
Willow ptarmigan move around a lot. If no foxes are around, they are close by. If foxes are around, they move up into the hills.
CODE[191-58-111097

KIVALINA. CANADA GEESE. WHITE-FRONTED GEESE. SEASONALITY. NESTING.
Canada geese arrive in late April. They stay around all summer into the fall. White-fronted geese are around here. They nest around here. They leave in the middle of fall.
CODE[191-58-111097

KIVALINA. BRANT. MIGRATION. SEASONALITY.
Brant come through in the spring, but they are gone in the summer. We don't see them in the fall. We always hunt a few.
CODE[191-58-111097

KIVALINA. SNOW GEESE. MIGRATION.
Snow geese come through in the springtime, but don't stay long.
CODE[191-58-111097

KIVALINA. PREFERENCE. GEESE. DUCKS. PINTAIL. CANADA GEESE.
Of all the waterfowl, people like geese best. All of the geese. We don't hunt ducks too much. We have pintails around, but they are small next to geese. Birds are good for emergency only, except for Canada goose and other geese.
CODE[191-58-111097

KIVALINA. HUNTING METHODS. HUNTING AREAS. DUCKS. GEESE.
In the springtime, we use our snowmachines to hunt birds. Sometimes we cover them with willows. Sometimes we park and walk to a good hunting place. Mostly we go out that way [east/southeast] to hunt, but sometimes we go on that side [north/northwest], too. Sometimes we stay overnight at hunting places if we don't get many birds. People use 12 gauge shotguns.
CODE[191-58-111097

KIVALINA. KING EIDER. COMMON EIDER. PREFERENCE. SEASONALITY. MIGRATION.
I've only seen king eiders when they wash up on shore. Never seen one alive. Common eider are the main kind we see. Some people get them. They are around all summer. They fly through down the beach. Fall eiders are still out there on the ocean. Some might stay all year. But we are mostly eating caribou, fish, and paniqtuq in the fall. We are not eating ducks this time of year.
CODE[191-58-111097

KIVALINA. MURRE. EGGS. PUFFIN. CAPE THOMPSON. MEAL PREPARATION. PRESERVATION. SEASONALITY.
We get murre eggs around July 1st. We see puffins there at Cape Thompson. It is a couple hours by boat to Cape Thompson. It has to be a nice day. We boil or scramble the eggs. We don't know how to keep them. We have to eat them before they spoil.
CODE[191-58-111097

KIVALINA. LOON.
There always be some loons around. Out in the ocean and on the rivers. We ate lots of loons as kids.
CODE[191-58-111097

KIVALINA. SANDHILL CRANE. PREFERENCE. SEASONALITY.
In springtime, cranes start coming around May. We hardly hunt them. They taste different from other birds. I don't know how, just not like other birds, not like geese. They eat berries.
CODE[191-58-111097

KIVALINA. TUNDRA SWAN. REGULATIONS. POPULATION LEVELS.
Swans are too expensive around here. We say they are $100 a bowl. We have lots and lots of them. They are good to eat if soft. The boys like to hunt them but I tell them they are too expensive because of $500 fine.
CODE[191-58-111097

KIVALINA. OLDSQUAW. SCOTER.
Aahaaliqs [oldsquaw] stay around almost all year. People don't hunt them much. We never see scoters.
CODE[191-58-111097

KIVALINA. PROCESSING. SHARING. HUNTING SEASON. DUCKS. GEESE.
We pluck birds, clean them, and freeze them. In the old days, people used to eat them fresh and share them with other people that don't hunt. We hunt birds more in the springtime than in the falltime.
CODE[191-58-111097

KIVALINA. SNOWY OWL. HUNTING METHODS. MEAL PREPARATION. NESTING. SEASONALITY.
In the falltime, we get snowy owls. This year we haven't seen them. We didn't see any this year. We set a trap. We don't use bait. We put the trap on any log sticking up. They like to land on logs. You have to check on the trap every day. We make soup with them or bake them. They are here for a while only. I never see a nest.
CODE[191-58-111097

KIVALINA. GEESE. FEATHERS. NON-FOOD PRODUCTS.
I save down from geese for pillows. They have more down than other birds so that is what I use. I like down pillows. My husband says they are too hot.
CODE[191-58-111097

KIVALINA. KING EIDER. COMMON EIDER. STELLER'S EIDER. PREFERENCE.
We see king eiders and common eiders. Once in awhile Steller's eiders pass through. We're not crazy about eiders. If there are no other ducks, maybe we will catch them. We just let them fly by. A long time ago maybe we hunted them.
CODE[191-58-111097

KIVALINA. EMPEROR GEESE.
Only one time I saw an emperor goose. Real close. It made a funny noise. It looked different so I didn't shoot it. It looked different. Then I decided to get it, but by then it was too far gone. So I didn't get it.

CODE[191-58-111097

KIVALINA. CANADA GEESE. BRANT. WHITE-FRONTED GEESE. SNOW GEESE.
Mostly we get Canada geese. Also brants, white-fronted geese, and snow geese. All these are yummy.
CODE[191-58-111097

KIVALINA. GEESE. HUNTING METHODS. MOLTING.
I've never heard of herding geese to catch them. One time we saw a lot of geese on the beach. We chased the geese down the beach with sticks but we only caught nine. They are fast runners. We used a stick to catch them but that didn't work so good.
CODE[191-58-111097

KIVALINA. BRANT. SEASONALITY.
We see brants in the springtime, in June. They run for 3½ or 4 weeks then are gone.
CODE[191-43-111097

KIVALINA. CANADA GEESE. NESTING. SEASONALITY.
Canada geese arrive in May. They nest around here on the tundra. They leave as soon as they can fly in the last part of August or first part of September.
CODE[191-43-111097

KIVALINA. WHITE-FRONTED GEESE. MIGRATION.
White-fronted geese arrive in May. Most go on up north but some stay around for the summer.
CODE[191-43-111097

KIVALINA. SNOW GEESE. SEASONALITY. NESTING.
Snow geese come about the first week of May. They run for three weeks then they are gone. We see them in big flocks. A few nest behind Cape Thompson in a lake behind there. I don't know what it's called. That's where they nest.
CODE[191-43-111097

KIVALINA. EMPEROR GEESE.
I don't see emperor geese.
CODE[191-43-111097

KIVALINA. GEESE. BRANT. PREFERENCE.
People like all the geese best. Brants are smaller but still good.
CODE[191-43-111097

KIVALINA. PINTAIL. MALLARD. SHOVELER. GREEN-WINGED TEAL.
Pintails, mallards, and shovelers are around here. Teal are around here, too — the small ones. Sometimes people get mallards and pintails.
CODE[191-43-111097

KIVALINA. OLDSQUAW.
We have lots of oldsquaws. People hardly like them. It seems like they are all over, but mostly on the coast.
CODE[191-43-111097

KIVALINA. BLACK SCOTER. COMMON MERGANSER.
We have black scoters around here. We have common mergansers mostly on the creeks and rivers.
CODE[191-43-111097

KIVALINA. COMMON EIDER. KING EIDER. SEASONALITY. ECOLOGY. OLDSQUAW. NESTING. POPULATION LEVELS. EGGS.
Common eider and king eider come earlier than other birds. They come with open leads in the ice. They come before geese. There are big flocks. The two kinds of eiders are usually not mixed together. When eiders first come in, before the geese come in, that's when we hunt them. We hunt them down the coast or near a lead if it is close. There are some eiders still out there. Eiders stay late. Also oldsquaws. They stay late. They stay until ice comes. Eiders nest around here. It seems like they nest right on the beach. They have good eggs, too. Real big ones. They make a nest on the ground, then put their down in the nest. We find them sometimes. Eiders seem to be about the same in numbers.
CODE[191-43-111097

KIVALINA. RED-THROATED LOON. COMMON LOON. YELLOW-BILLED LOON. EGGS. ORAL TRADITIONS.
People hardly hunt loons. It is hard to get their eggs. Loons are dangerous. Those big loons with the yellow beaks. They poke from under. There is a story about a man in a kayak who tried to get them. They poked right through the man's kayak. We see red-throated, yellow-billed, and common loons.
CODE[191-43-111097

KIVALINA. MURRE. EGGS. PREFERENCE. HUNTING METHODS.
We have lots of murres. They're good. When we don't have a lot of meat, we can get them for a meal. They're good medium-rare. When you climb the bluffs, you put eggs in a parkie. Tie up the bottom and put the eggs in through the top of the parkie. When I was taught to get them, we first used a rope. An older man watched us. He taught us in one day. He told us not to hurry. One time I fell and I got scared of climbing.
CODE[191-43-111097

KIVALINA. HORNED PUFFINS. EGGS. CAPE THOMPSON.
We have horned puffins at Cape Thompson. We get puffin eggs.
CODE[191-43-111097

KIVALINA. AUKLETS.
We see auklets on ocean leads. We don't catch them because they are too small.
CODE[191-43-111097

KIVALINA. GULL EGGS. SEASONALITY.
We get seagull eggs. There are some where they nest, mostly on the other channel. We get them in the first part of June. If you get them after the 15th, you put them in water. If they float, there is air inside and they are no good.
CODE[191-43-111097

KIVALINA. MURRE EGGS. PRESERVATION. MEAL PREPARATION.
Murre eggs can be cooked and put in oil. But mostly we eat them up fresh. We share them around. We eat them boiled or scrambled.
CODE[191-43-111097

KIVALINA. PTARMIGAN. HUNTING SEASON.
We get both kinds of ptarmigan. We have that fancy kind, too, the mountain [rock] ptarmigan. Most ptarmigan hunting is with snowmachines.
CODE[191-43-111097

KIVALINA. SNOWY OWL. SEASONALITY. HUNTING METHODS.
We have snowy owls. We catch them about this time of year [November]. Mostly people trap them.
CODE[191-43-111097

KIVALINA. TUNDRA SWAN. HUNTING SEASON.
We have lots of swans. They are like turkeys. People get them when they are migrating through in springtime.
CODE[191-43-111097

KIVALINA. SANDHILL CRANE.
Cranes come with the geese in springtime. Some people like to eat them if there are no ducks.
CODE[191-43-111097

KIVALINA. DUCKS. GEESE. CUSTOMARY RULE.
In July, after the birds give birth, we don't hunt them. That's a traditional rule.
CODE[191-43-111097

KIVALINA. HUNTING SEASON. HUNTING METHODS. PROCESSING. PRESERVATION. DUCKS. GEESE.
People pluck birds, cut them up, and freeze them. Mostly people hunt in the springtime. Very few hunt in the falltime. You'll see lots of hunters out in the springtime. Mostly we use dead willows for blinds.
CODE[191-43-111097

# BIRD HUNTING IN KOBUK, ALASKA

## November 1996 through October 1997

Results of a cooperative project by Maniilaq Association
and the Division of Subsistence, Alaska Department of Fish and Game,
funded by the U.S. Fish and Wildlife Service
March 1998

**Introduction**

Birds are important to families in northwest Alaska. They are an important part of the culture and traditional way of life of Alaska Natives. Birds and bird eggs are eaten for food, and feathers are used in hand-crafted items. This report presents information on bird hunting and harvests in Kobuk for a 12-month period (November 1996-October 1997). The information results from a cooperative project between Maniilaq Association and the Alaska Department of Fish and Game.

**The Project**

Several groups worked together on the project to gather information on birds at Kobuk. The Kobuk Traditional Council approved the project by resolution. A survey of households was done by a local researcher hired and supervised by Maniilaq Association. The project was designed by the Division of Subsistence, Alaska Department of Fish and Game, who also put the information into tables and into this report. Money for the project came from the U.S. Fish and Wildlife Service. Preliminary results were reviewed by Maniilaq and the Division of Subsistence, ADF&G.

**How the Information Was Collected**

A survey was used to gather information on bird harvests. Surveys were done in all 25 households in Kobuk. Also, two bird hunters from Kobuk were interviewed about bird ecology and traditional uses of birds. Surveys were done in November 1997. On the survey, people were asked about bird hunting during the 12-month period, November 1996 through October 1997. Participation in the survey was voluntary. To protect confidentiality, no person's name is used in any reports of the information.

**Findings**

Households in Kobuk reported the following things about their use of birds and eggs in the 12-month period:

- Nearly all households (92.0 percent) used birds (see Fig. 4).
- Almost two-thirds of households (60.0 percent) hunted birds (see Fig. 4).
- Sharing of birds was common. About one-half (48.0 percent) of households received birds from other families, and 44.0 percent of households gave birds to others (see Fig. 4).
- At least 14 kinds of birds were caught – white-fronted geese, cackling and lesser Canada geese, northern pintail, American wigeon, mallard, northern shoveler, lesser scaup,

canvasback, oldsquaw, black scoter, willow ptarmigan, sandhill crane, and tundra swan (see Table 1).

- An estimated 793 birds were caught by households in Kobuk during the 12-month study period.
- The five kinds of birds caught in greatest numbers were white-fronted geese (145 birds), lesser Canada geese (130 birds), northern pintail (128 birds), mallard (123 birds), and willow ptarmigan (83 birds) (see Table 1). These five kinds accounted for about 77 percent of all the birds caught by Kobuk hunters.
- Nearly all birds were caught in the spring. Only ptarmigan were caught in other seasons of the year (fall and winter) (see Fig. 3).
- The classifications of Canada geese harvests into "cackling Canada" or "lesser Canada" by hunters are uncertain because of the close resemblance of the two species and the difficulties distinguishing them in the colored bird guide used in the survey.
- None of the interviewed households gathered eggs during the study year.
- Information from interviewed hunters about birds in the Kobuk area is attached as an appendix.

**Computerized Data Files**

This information is available as computer files at Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752 (907-442-3311) or the Division of Subsistence, Alaska Department of Fish and Game, Box 3-2000, Juneau, Alaska 99802 (907-465-4147). Information requests can be made from either group.

**Acknowledgments**

A sincere thank-you is given to all households and hunters who generously agreed to be surveyed or interviewed for this project. A special thanks is given to Art Ivanoff of Maniilaq Association, who obtained IRA approvals, hired community assistants, and supervised data collection; Ethel Wood, Sr. of Kobuk, who conducted the household surveys; Susan Georgette of the Division of Subsistence, ADF&G, who trained surveyors, interviewed hunters, and wrote the report; and the Kobuk Traditional Council, who supported the project.

# Table 1. KOBUK
# Bird Harvests, November 1996-October 1997[1]

| Bird Species | | Total Harvests | | Bird Harvest By Season[2] | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Birds | Eggs | Winter | Spring | Summer | Fall | Unknown |
| **Geese** | White-fronted Geese | 145 | | | 145 | | | |
| | Emperor Geese | | | | | | | |
| | Cackling Canada Geese | 52 | | | 52 | | | |
| | Lesser Canada Geese | 130 | | | 130 | | | |
| | Snow Geese | | | | | | | |
| | Brant | | | | | | | |
| **Ducks** | Northern Pintail | 128 | | | 128 | | | |
| | American Wigeon | 20 | | | 20 | | | |
| | Mallard | 123 | | | 123 | | | |
| | Northern Shoveler | 10 | | | 10 | | | |
| | Greater Scaup | | | | | | | |
| | Lesser Scaup | 10 | | | 10 | | | |
| | Canvasback | 15 | | | 15 | | | |
| | Green-winged Teal | | | | | | | |
| | Common Merganser | | | | | | | |
| | Red-breasted Merganser | | | | | | | |
| | Bufflehead | | | | | | | |
| | Harlequin | | | | | | | |
| | Oldsquaw | 39 | | | 39 | | | |
| | Common Goldeneye | | | | | | | |
| | Black Scoter | 32 | | | 32 | | | |
| | Surf Scoter | | | | | | | |
| | White-winged Scoter | | | | | | | |
| | Common Eider | | | | | | | |
| | King Eider | | | | | | | |
| | Spectacled Eider | | | | | | | |
| | Steller's Eider | | | | | | | |
| **Loons** | Common Loon | | | | | | | |
| | Pacific (Arctic) Loon | | | | | | | |
| | Red-throated Loon | | | | | | | |
| | Yellow-billed Loon | | | | | | | |
| **Seabirds** | Common Murre | | | | | | | |
| | Thick-billed Murre | | | | | | | |
| | Black Guillemot | | | | | | | |
| | Sabine's Gull | | | | | | | |
| | Mew Gull | | | | | | | |
| | Glaucous Gull | | | | | | | |
| | Arctic Tern | | | | | | | |
| | Auklets | | | | | | | |
| | Puffins | | | | | | | |
| | Pelagic Cormorant | | | | | | | |
| **Shorebirds** | Plover | | | | | | | |
| | Common Snipe | | | | | | | |
| **Game Birds** | Willow Ptarmigan | 83 | | 1 | 30 | | 52 | |
| | Rock Ptarmigan | | | | | | | |
| | Spruce Grouse | | | | | | | |
| **Snowy Owl** | | | | | | | | |
| **Sandhill Crane** | | 4 | | | 4 | | | |
| **Tundra Swan** | | 2 | | | 2 | | | |
| **TOTAL** | | **793** | | **1** | **740** | | **52** | |

[1] Based on a census sample of 25 of 25 households. Data were collected by a local researcher on contract with Maniilaq Association, through cooperative agreements between ADFG, Division of Subsistence, Maniilaq Association, and U.S. Fish and Wildlife Service. Research was approved by resolution of the Kobuk Traditional Council. Project funded by USFWS.

[2] Winter=Nov, Dec, Jan, Feb; Spring=Mar, Apr, May; Summer=Jun, Jul; Fall=Aug, Sep, Oct.

SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1997.

# KOBUK
# Bird Harvest Patterns
# November 1996-October 1997

Fig. 1 **Kobuk Bird Harvests, November 1996-October 1997, by Bird Type**

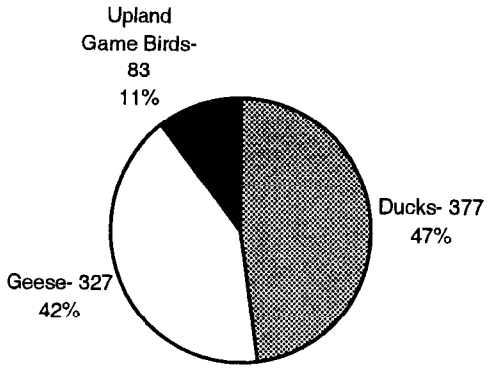



Fig. 2 **Kobuk Egg Harvests November 1996-October 1997, by Bird Type**

No egg harvest recorded during the study period by sampled households.

Fig. 3 **Kobuk Bird Harvests, November 1996-October 1997, by Season**

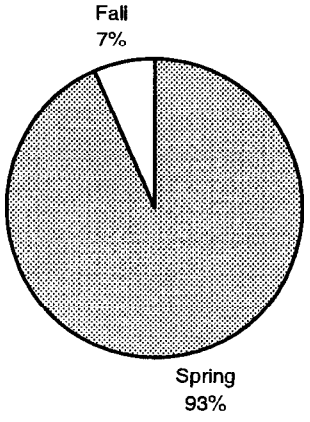
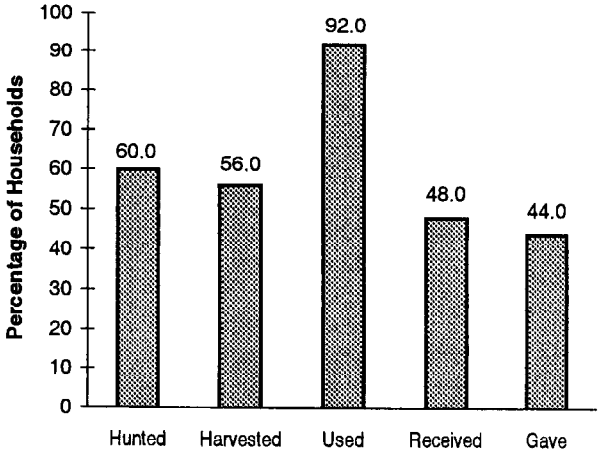



Fig. 4 **Percentage of Kobuk Households that Hunted, Harvested, Used, Received, or Gave Birds, 1996**




SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1997.

# Migratory Bird Field Notes
## Kobuk, Alaska
## November 1997

KOBUK. WHITE-FRONTED GEESE. CANADA GEESE. SNOW GEESE. SEASONALITY. NESTING.
White-fronts, Canada geese, and snow geese are the geese we get around here. White-fronts and Canadas nest around here. They arrive at the last part of April. About the time the ice goes out or just before, we see snow geese. Not many, just a few. They are headed to the coast. We see them only in the spring. They don't stay around here. We call white-fronted geese "yellow-legs" and we call Canada geese "honkers."
CODE[195-23-110397

KOBUK. BRANT. MIGRATION.
Brants pass by in the spring. They fly high. They are too high to hunt so no one gets them. But we see them pass by.
CODE[195-23-110397

KOBUK. PINTAIL. MALLARD. WIGEON. SHOVELER.
Pintails, mallards, wigeons, and shovelers are the ducks we see most often around here. They are all good eating. They show up about the same time as geese, the last part of April and May. Ducks all over. We call shovelers "spoonbills."
CODE[195-23-110397

KOBUK. CANVASBACK. SCAUP. TEAL.
We also get canvasbacks, scaups, and teal. We call scaups "bluebills" and we call teal "cup-a-soup" because they are so small.
CODE[195-23-110397

KOBUK. MERGANSER. OLDSQUAW. GOLDENEYE. SEASONALITY. NESTING.
We see mergansers. We call them "fish ducks." People don't hunt them. We also get oldsquaws -- "squaw ducks." They're not fishy. They're fat and good when they show up here in the spring. They show up later than some of the other ducks. Maybe middle of May. They have nests around here. We get goldeneyes here, too.
CODE[195-23-110397

KOBUK. BLACK SCOTER. SEASONALITY.
We have lots of black scoters in the spring. We call them "black ducks." They don't nest around here. They're gone after the spring. We don't see them in fall either.
CODE[195-23-110397

KOBUK. COMMON LOON. YELLOW-BILLED LOON. EGGS. MERGANSER.
Some loons are around here -- common and yellow-billed. They stay around all summer. We hardly find their eggs. They let the eggs sink when people come around, then they pick them up again when people are gone. Same with mergansers.
CODE[195-23-110397

KOBUK. EGGS.
People don't gather eggs much around here.
CODE[195-23-110397

KOBUK. PLOVER. SNIPE.
We see plovers and snipes around here but people don't hunt them.
CODE[195-23-110397

KOBUK. PTARMIGAN. SPRUCE GROUSE. POPULATION LEVELS. HUNTING SEASON.
We have lots of willow ptarmigan and rock ptarmigan around here. We call rock ptarmigan "mountain ptarmigan." We don't hunt them in August, mostly in the winter and fall. We have lots of grouse around here. We shot eight around our house this year.
CODE[195-23-110397

KOBUK. SNOWY OWL. HUNTING METHODS.
We see snowy owls in the winter. They are good eating, but they are hard to catch. You can chase them and chase them, but never get them. You can put a pole with a trap on top to catch them.
CODE[195-23-110397

KOBUK. TUNDRA SWAN. SANDHILL CRANE. NESTING. HUNTING SEASON.
We have lots of swans and cranes. Cranes come early, in early April. They nest here. We don't hunt them in the fall. Swans are all over, everywhere. They nest here.
CODE[195-23-110397

KOBUK. POPULATION LEVELS. MIGRATION.
Bird populations haven't changed. They're the same numbers. Sometimes they pass us by because they go Selawik way or Noatak way. But their numbers haven't changed.
CODE[195-23-110397

KOBUK. HUNTING METHODS. DUCKS. GEESE.
There are probably only three or four or five guys in Kobuk who hunt birds a lot. We hunt them in the spring at Cut Bank with decoys. We hunt them some in the fall when we have a chance, but you can't call them in in the fall.
CODE[195-23-110397

KOBUK. CURLEW.
The last two years I've seen curlews. People said they were dying off.
CODE[195-23-110397

KOBUK. CANADA GEESE. WHITE-FRONTED GEESE. SNOW GEESE. SEASONALITY. POPULATION LEVELS.
We get Canada geese and yellow-legs [white-fronted geese] and snow geese. They arrive in late April or early May. Sometimes earlier, sometimes later. Sometimes when the weather's cold they know about it ahead of time and can't come around. The snow geese come a little after the other geese. We have lots of geese around here, as many as always.
CODE[195-9-110497

KOBUK. BRANT. MIGRATION.
Brants come around once in while but they don't stay around here. They only come through in the spring time. People don't catch them. They are just passing through on their way to the coast.
CODE[195-9-110497

KOBUK. CANADA GEESE. NESTING. WHITE-FRONTED GEESE. MOLT.
Canada geese nest upriver. They molt upriver and have their young upriver, too. When we raft down in the spring, there are geese around every bend, being really noisy. I don't know where the yellow-legs [white-fronts] nest. Maybe on lakes in the tundra or on the coast.
CODE[195-9-110497

KOBUK. PINTAIL. MALLARD. SHOVELER. WIGEON. SCAUP. CANVASBACK. SEASONALITY. TEAL. POPULATION LEVELS.
We have pintails, mallards, shovelers, wigeons. All kinds of ducks. We have scaup and canvasback but not as many as the others. The pintails and wigeons come around first. They show up after the geese. They have to wait until there's more ground and places to land. They stay upriver where there's more open places. We have teal, too. Those are the real small ones.
CODE[195-9-110497

KOBUK. MERGANSER. SEASONALITY. NESTING.
Fish ducks [mergansers] come after breakup. They stay until freeze-up. We have both kinds of mergansers. People don't hunt them unless they are starving. The fish ducks mostly nest out by lakes where they can't be bothered. There's an island at Norutak Lake where lots of ducks nest. When we pass by, the fish ducks drop their eggs in the water to hide them. I don't know how they pick them up again.
CODE[195-9-110497

KOBUK. OLDSQUAW. HARLEQUIN.
Aahaaliqs or oldsquaws pass by in the springtime. We don't see harlequin ducks, only down on the coast. In summertime there's some kind of duck that likes soot. You see them flying around the village houses and then they are gone. I don't know what kind. They're kind of dark birds.
CODE[195-9-110497

KOBUK. SURF SCOTER. PINTAIL. WIGEON. PREFERENCE.
We get surf scoters around here. We call them "black ducks." I don't know if they nest around here. We get them in the springtime. Pintails, wigeons, and scoters are the ducks we catch the most around here.
CODE[195-9-110497

KOBUK. COMMON LOON. YELLOW-BILLED LOON. SKIN.
We have common loons around here. We don't really hunt them unless they come near us. We eat them but their fishy. Old people like them. Really really old people. People used to use their skins. Yellow-billed loons are on the coast but I don't think they are around here.
CODE[195-9-110497

KOBUK. EGGS.
People don't gather eggs much around here. Not like on the coast. We used to gather them from an island at Norutak Lake quite awhile ago. We put them if the water to see if they were good to eat. If they floated, the egg was about to hatch. If they sank, it was fresh.
CODE[195-9-110497

KOBUK. SNIPE.
We have snipes but we don't hunt them. Maybe people did a long time ago.
CODE[195-9-110497

KOBUK. SNOWY OWL.
We see snowy owls once in a great while. Long time ago people used to get them. I've never tried one but people say they are good to eat.
CODE[195-9-110497

KOBUK. SANDHILL CRANES. SEASONALITY.
People hunt cranes. Sometimes we call them "dog-eaters" because they eat dogs. We have a different kind around here [than the one pictured]. It's all brown, not with red on its head. I wonder why it's not shown here. Maybe they don't know about it. Cranes come early in the spring. They're the first ones to come in the spring. They tell us that spring's here. They stay until late in the year.
CODE[195-9-110497

KOBUK. TUNDRA SWAN.
People get swans when no one is watching. Fish and Game is picky about swans. People got a couple once and Fish and Game didn't like it. Swans are good to eat.
CODE[195-9-110497

# BIRD HUNTING IN KOTZEBUE, ALASKA

November 1997 through October 1998

Results of a cooperative project by Maniilaq Association
and the Division of Subsistence, Alaska Department of Fish and Game,
funded by the U.S. Fish and Wildlife Service
April 1999

**Introduction**

Birds are important to families in northwest Alaska. They are an important part of the culture and traditional way of life of Alaska Natives. Birds and bird eggs are eaten for food, and feathers are used in hand-crafted items. This report presents information on bird hunting and harvests in Kotzebue for a 12-month period (November 1997-October 1998). The information results from a cooperative project between Maniilaq Association and the Alaska Department of Fish and Game.

**The Project**

Several groups worked together on the project to gather information on birds in Kotzebue. The Kotzebue IRA Council approved the project by resolution. A survey of households was done by local researchers hired and supervised by Maniilaq Association. The project was designed by the Division of Subsistence, Alaska Department of Fish and Game, who also put the information into tables and into this report. Money for the project came from the U.S. Fish and Wildlife Service. Preliminary results were reviewed by Maniilaq and the Division of Subsistence, ADF&G.

**How the Information Was Collected**

A survey was used to gather information on bird harvests. Surveys were done in 54 of 66 active bird hunting households (identified by Maniilaq Association) and 44 of 697 randomly selected households in Kotzebue. Also, two bird hunters from Kotzebue were interviewed about bird ecology and traditional uses of birds. Surveys were done in March 1999 in Kotzebue. On the survey, people were asked about bird hunting during the 12-month period, November 1997 through October 1998. Participation in the survey was voluntary. To protect confidentiality, no person's name is used in any reports of the information.

**Findings**

Households in Kotzebue reported the following things about their use of birds and eggs in the 12-month period:

- Almost three-fourths of households used birds (see Fig. 4).
- Almost two-thirds of households hunted birds (see Fig. 4).
- Sharing of birds was common. About one-third (34 percent) of households received birds from other families, and 43 percent of households gave birds to others (see Fig. 4).

- At least 24 kinds of birds were caught—white-fronted geese, emperor geese, Canada geese, snow geese, brant, northern pintail, American wigeon, mallard, northern shoveler, greater scaup, canvasback, green-winged teal, oldsquaw, black scoter, white-winged scoter, common eider, Steller's eider, loon (unspecified), thick-billed murre, willow ptarmigan, rock ptarmigan, spruce grouse, sandhill crane, and tundra swan (see Table 1).

- An estimated 13,578 birds were caught by households in Kotzebue during the 12-month study period.

- The five kinds of birds caught in greatest numbers were willow ptarmigan (5,288 birds), Canada geese (2,462 birds), white-fronted geese (1,421 birds), mallard (997 birds), and northern pintail (868 birds) (see Table 1). These five kinds accounted for 81 percent of all the birds caught by Kotzebue hunters.

- An estimated 6,837 eggs were gathered by households in Kotzebue during the 12-month study period. These were mostly gull eggs, but also included eggs of Canada geese, brant, northern pintail, common and king eider, common murre, puffins, sandhill crane, and tundra swan (see Table 1).

- Birds were caught in every season of the year, with spring the season of the highest bird harvests (see Fig. 3).

- According to knowledgeable hunters, most of the Canada geese caught by Kotzebue residents are the subspecies called lesser Canada geese. One of the local names for these Canada geese is "cacklers." Classifying Canada geese harvests into subspecies ("lesser" or "cackling") proved difficult because of the different naming systems and the close resemblance of Canada geese subspecies in colored bird guides.

**Computerized Data Files**

This information is available as computer files at Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752 (907-442-3311) or the Division of Subsistence, Alaska Department of Fish and Game, Box 3-2000, Juneau, Alaska 99802 (907-465-4147). Information requests can be made from either group.

**Acknowledgments**

A sincere thank-you is given to all households and hunters who generously agreed to be surveyed or interviewed for this project. A special thanks is given to Enoch Shiedt of Maniilaq Association, who obtained tribal council approvals, hired community assistants, and supervised data collection; Betty Nelson and Nate Shiedt of Kotzebue, who conducted the household surveys; Susan Georgette of the Division of Subsistence, ADF&G, who trained surveyors and wrote the report; and the Kotzebue IRA Council, who supported the project.

# Table 1. KOTZEBUE
## Bird Harvests, November 1997-October 1998[1]

| Bird Species | | Total Harvests | | Bird Harvest By Season[2] | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Birds | Eggs | Winter | Spring | Summer | Fall | Unknown |
| **Geese** | White-fronted Geese | 1,421 | | | 805 | 1 | 615 | |
| | Emperor Geese | 95 | | | 95 | | | |
| | Canada Geese | 2,462 | 234 | | 1,501 | 31 | 930 | |
| | Snow Geese | 85 | | | 85 | | | |
| | Brant | 200 | 7 | | 155 | 37 | 9 | |
| | Unknown Geese | 60 | 20 | | 60 | | | |
| **Ducks** | Northern Pintail | 868 | 229 | | 471 | 101 | 296 | |
| | American Wigeon | 490 | | | 37 | | 454 | |
| | Mallard | 997 | | | 463 | 87 | 447 | |
| | Northern Shoveler | 54 | | | 49 | 2 | 2 | |
| | Greater Scaup | 46 | | | | | 46 | |
| | Lesser Scaup | | | | | | | |
| | Canvasback | 91 | | | 6 | | 85 | |
| | Green-winged Teal | 87 | | | 40 | | 46 | |
| | Common Merganser | | | | | | | |
| | Red-breasted Merganser | | | | | | | |
| | Bufflehead | | | | | | | |
| | Harlequin | | | | | | | |
| | Oldsquaw | 7 | | | 7 | | | |
| | Common Goldeneye | | | | | | | |
| | Black Scoter | 21 | | | 21 | | | |
| | Surf Scoter | | | | | | | |
| | White-winged Scoter | 6 | | | | | 6 | |
| | Common Eider | 68 | 15 | | 68 | | | |
| | King Eider | | 122 | | | | | |
| | Spectacled Eider | | | | | | | |
| | Steller's Eider | 115 | | | | | 115 | |
| | Unknown Eider | 6 | | | 6 | | | |
| | Unknown Ducks | 743 | | | 575 | | 168 | |
| **Loons** | Common Loon | | | | | | | |
| | Pacific (Arctic) Loon | | | | | | | |
| | Red-throated Loon | | | | | | | |
| | Yellow-billed Loon | | | | | | | |
| | Unknown Loon | 1 | | | 1 | | | |
| **Seabirds** | Common Murre | | 329 | | | | | |
| | Thick-billed Murre | 1 | | | | 1 | | |
| | Black Guillemot | | | | | | | |
| | Sabine's Gull | | 12 | | | | | |
| | Mew Gull | | 1,310 | | | | | |
| | Glaucous Gull | | 339 | | | | | |
| | Unknown Gull | | 4,178 | | | | | |
| | Arctic Tern | | | | | | | |
| | Auklets | | | | | | | |
| | Puffins | | 15 | | | | | |
| | Other Seabirds | | | | | | | |
| **Shorebirds** | Plover | | | | | | | |
| | Common Snipe | | | | | | | |
| **Game Birds** | Willow Ptarmigan | 5,288 | | 3,334 | 1,668 | | 285 | |
| | Rock Ptarmigan | 240 | | 177 | 63 | | | |
| | Spruce Grouse | 2 | | | | | 2 | |
| **Snowy Owl** | | | | | | | | |
| **Sandhill Crane** | | 31 | 5 | | 26 | | 5 | |
| **Tundra Swan** | | 91 | 22 | | 22 | | 69 | |
| **TOTAL** | | **13,578** | **6,837** | **3,511** | **6,224** | **260** | **3,583** | |

[1] Based on a stratified sample of 54 of 66 hunter households and 44 of 697 random households, expanded to all households. Data were collected by local researchers on contract with Maniilaq Association, through cooperative agreements between ADFG, Division of Subsistence, Maniilaq Association, and the US Fish and Wildlife Service. Research was approved by resolution of the Kotzebue IRA Council. Project funded by USFWS.

[2] Winter=Nov, Dec, Jan, Feb; Spring=Mar, Apr, May; Summer=Jun, Jul; Fall=Aug, Sep, Oct.

SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1998.

# KOTZEBUE
# Bird Harvest Patterns
# November 1997 - October 1998

Fig. 1

**Kotzebue Bird Harvests, November 1997 - October 1998, by Bird Type**

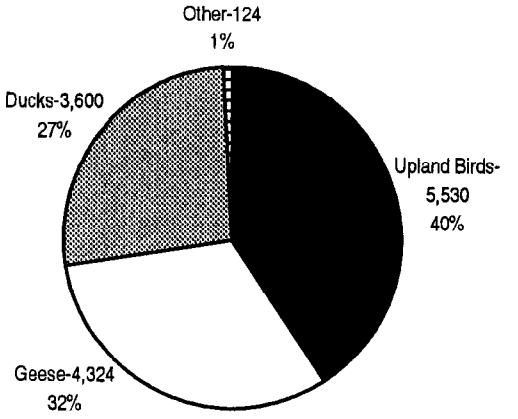



Fig. 2

**Kotzebue Egg Harvests, November 1997 - October 1998, by Bird Type**

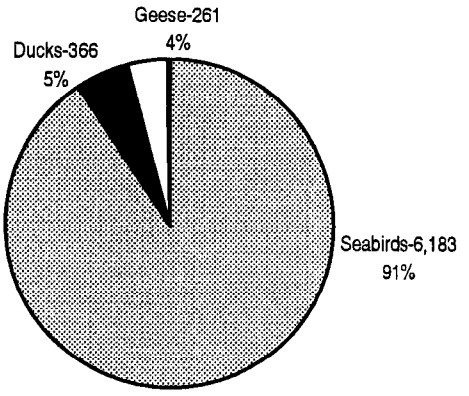



Fig. 3

**Kotzebue Bird Harvests, November 1997 - October 1998, by Season**

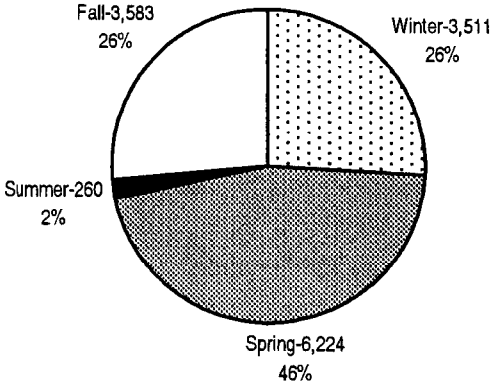
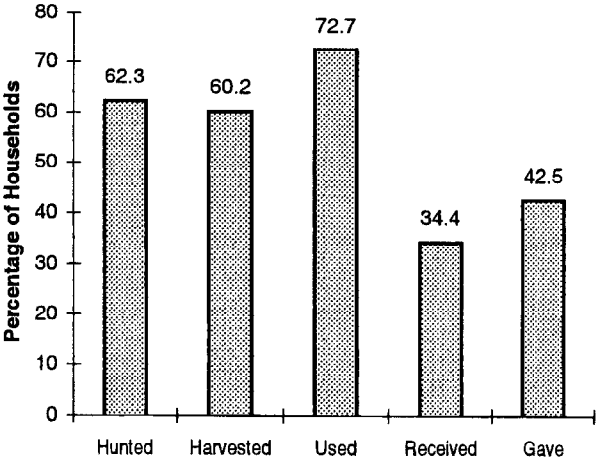



Fig. 4

**Percentage of Kotzebue Households that Hunted, Harvested, Used, Received, or Gave Birds, 1997-98**




SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1998.

# Migratory Bird Key Respondent Notes, 1999
# Kotzebue

KOTZEBUE. SNOW GEESE. CANADA GEESE. BRANT. MIGRATION. NATURAL HISTORY. NESTING.
We got lots of snow geese. They don't come like the rest but travel in one big pack. They don't come every two or three hours like brant or Canada geese. In a day if you're hunting out there, you'll be lucky to get two big packs go by with 200-300 each. Once you drop one, they get real tame. You can get real close. When you shoot one with a shotgun, they don't leave, but stay around wondering what's going on here. Very few snow geese nest around here, maybe 1 in 10. They have nesting grounds way up north. They don't go by here in the falltime. They go through the Brooks Range someplace. I wonder why they go through that way.
CODE[203-185-050599

KOTZEBUE. WHITE-FRONTED GEESE. SEASONALITY. POPULATION LEVELS.
We call white-fronted geese "yellow-legs." We see them in the falltime, but not too much in the springtime. There are more white-fronted geese over my lifetime. There are thousands and thousands in the early fall where we go berrypicking. They make the sky black for awhile. They stop for two weeks and hang around where we are. They stay around until September. You're lucky to find one of their nests.
CODE[203-185-050599

KOTZEBUE. EMPEROR GEESE.
We very seldom see emperor geese.
CODE[203-185-050599

KOTZEBUE. CANADA GEESE. BRANT. POPULATION LEVELS. KRUSENSTERN. NESTING.
We have lots of Canada geese and brants. I'm talking about over at Krusenstern and Nuvugraq areas. They are the most common. Brants are real small here. Canada geese nest around here. Brants have hardly any nests around here. Their nesting grounds are further up north. But quite a bit more have started nesting in the area now. There used to be more long ago but with more people and easier traveling the brant moved their nesting ground somewhere. People aren't hunting with kayaks any more.
CODE[203-185-050599

KOTZEBUE. GEESE. DUCKS. SEASONALITY. HUNTING AREAS.
I do more bird hunting in the falltime than the springtime. The falltime is when the birds pile up over there. Lots of birds are on their way back in the falltime, fat and milling around. In the springtime, you got to go look for them. In the falltime, they go to you. We just kill what we need. All the hunting action is at Noatak flats and Kiliqmiaq.
CODE[203-185-050599

KOTZEBUE. BRANT. WHITE-FRONTED GEESE. SNOW GEESE. PREFERENCES.
Brant is best. It has real soft, good meat. So do yellow-legs [white-fronts]. But you can't beat snow geese. You really can't tell. They are all the same. They are all good.
CODE[203-185-050599

KOTZEBUE. DUCKS. HUNTING SEASON. NORTHERN PINTAIL. AMERICAN WIGEON. MOLTING. HUNTING AREA.
Falltime and early in spring is when we hunt ducks, mostly pintails and wigeons. We used to hunt pintails near Krusenstern in the summer during molting. We still do that some, but not as much as before. We have other food now. Ducks just disappear when molting.
CODE[203-185-050599

KOTZEBUE. COMMON EIDER. POPULATION LEVELS. EGGING. HARVEST LEVELS.
Common eider is the most common one around Krusenstern. They declined for awhile, but they are starting to come back. We hunt their eggs down towards Krusenstern area. We don't hunt eider ducks much, one or two if we want to. We take our grandchildren to hunt eggs every year.
CODE[203-185-050599

KOTZEBUE. KING EIDER. SPECTACLED EIDER. STELLER'S EIDER.
We very seldom see king eiders. I don't recall hardly ever seeing spectacled or Steller's eiders.
CODE[203-185-050599

KOTZEBUE. BLACK SCOTER.
We have black scoters here. We hunt them once in awhile. They are real good eating. Good and tasty.
CODE[203-185-050599

KOTZEBUE. LOON. FOOD PREPARATION. HARVEST LEVELS. EGGS. NATURAL HISTORY.
Loons are pretty good boiled, but not made into stew like other birds. They eat fish and they've got a different kind of meat. In the springtime we get some. Not too many. Just enough for a taste. We have common, red-throated, arctic, and yellow-billed loons. The yellow-billed ones are the big ones. I don't recall ever finding eggs of loons.
CODE[203-185-050599

KOTZEBUE. GULL EGGS. NATURAL HISTORY.
We get quite a bit of gull eggs. They are all over. If we take eggs out of their nests, they'll have more tomorrow. Sometimes we make two rounds to the nests. We share them and eat them fresh.
CODE[203-185-050599

KOTZEBUE. ARCTIC TERN EGGS. GOLDEN PLOVER EGGS. NESTING. SNIPE EGGS. EGGING AREA.
We get arctic tern eggs sometimes. We also hunt golden plover eggs. They have nests in the flat tundra. This is all below the Krusenstern area. We also find snipe eggs.
CODE[203-185-050599

KOTZEBUE. SNOWY OWL.
Sometimes we hunt or trap snowy owls in the falltime.
CODE[203-185-050599

KOTZEBUE. SANDHILL CRANE. SEASONALITY. NESTING. EGGS. NATURAL HISTORY.
We hunt cranes, but not too much. They are good in early spring and again in late fall. There are quite a few down that way. They nest in the tundra by lakes or near marshes. Sometimes we find their eggs. They won't bother you for the first couple weeks, but later they can get aggressive.
CODE[203-185-050599

KOTZEBUE. TUNDRA SWAN. POPULATION LEVELS. PREFERENCES. PROCESSING.
We have lots of tundra swans. We got to start hunting them. We got thousands around here when they're coming back on their migration. The young ones are good. The young ones we feather. The old ones we skin. The old ones are too hard to feather.
CODE[203-185-050599

KOTZEBUE. OLDSQUAW. NESTING.
Oldsquaws are good in early spring. They lay eggs down in the Krusenstern area.
CODE[203-185-050599

KOTZEBUE. RED-BREASTED MERGANSER. EGGS.
Red-breasted mergansers feed mostly on fish. We don't go after them too much. But we take their eggs, of course.
CODE[203-185-050599

KOTZEBUE. SCAUP.
Scaup have really good meat. The only time we hunt them is falltime.
CODE[203-185-050599

KOTZEBUE. COMMON EIDER. SEASONALITY. KING EIDER. NATURAL HISTORY. EGGS. NESTING.
I used to see common eiders out in the winter when I was seal hunting, but I haven't seen them for awhile. A small group of about 10 pairs of king eiders are down below Cape Blossom every summer. They nest on Choris Peninsula. If you walk on top, you'll find them. We don't eat them. They're too fishy. We see them but we leave them alone. We leave their eggs alone. They say they defecate on their eggs so they smell bad and nothing will touch them.
CODE[203-221-051399

KOTZEBUE. BRANT. PREFERENCE.
Brants are the best. They have yellow fat. They are always fat when they come in. They are so fat that when you drop one it bursts open. My boys hunt them at Ivik. If you shoot at one, then wait a second, the other ones will bunch up and you can't miss. They are not like other geese that spread out when you shoot at them.
CODE[203-221-051399

KOTZEBUE. SNOW GEESE.
Snow geese stage in the spring at Kiliqmiaq. I don't know why they like it there. We hunt from the hill behind there.
CODE[203-221-051399

KOTZEBUE. WHITE-FRONTED GEESE. PREFERENCE. CANADA GEESE. TECHNOLOGY. HUNTING METHODS.
You'll probably find that in some villages the favored spring goose is the white-front. For a couple of reasons, it seems that everyone's spring favorite is white-fronted goose. It has the reputation in summer and fall of always being fat. Birds that are fat are always prized over lean ones. A very lean animal causes a person to think that the animal is diseased. Fatness is a quality indicator. With white-fronts, you are fairly assured that it will have enough fat to make a good pot of soup. Canada geese have the reputation for having more skinnier ones than white-fronts. In spring white-fronts are unusually easy to call in whether using decoys you buy or make. It is not the same bird in the springtime as in the fall when it is wary and hard to hunt. In the springtime it is one of the easiest to hunt. For some young adults, spring goose hunting is the only way to get out on the land. Hunting has become more sophisticated with commercial decoys and calls. These are very effective with white-fronts.
CODE[203-261-051299

KOTZEBUE. WHITE-FRONTED GEESE. NESTING. MOLTING.
White-fronts nest around here. They like to nest in a chain of lakes with lots of willows around it. There is an Eskimo word for that kind of place. The ones that nest successfully are the very early migrants. These are not just adult birds but older adult birds that have nested for several years. They get into chosen nesting areas first. There is a limited number of molting white-fronts in the area. Wherever there is nesting there would be molting.
CODE[203-261-051299

KOTZEBUE. WHITE-FRONTED GEESE. SEASONALITY. CANADA GEESE. FEEDING.
White-fronted geese are one of the first to arrive and one of the first to leave. They are active around here until about the end of August. They are less berry-oriented than Canada geese which may be one reason that they leave early. Canada geese will stay around until October because blackberries are available. White-fronted geese have bigger droppings than Canada geese. White-fronts seek green growth to eat in some of the last places to sprout. They will even push aside ripe salmonberries to reach green shoots.
CODE[203-261-051299

KOTZEBUE. WHITE-FRONTED GEESE. POPULATION LEVELS.
According to scientists, the population of white-fronts from this area has been in decline for quite awhile. They leave here first in the fall and arrive first on the lower 48 hunting grounds where they receive a lot of hunting pressure. I've worried about white-fronts for a long time. I always feel a bit guilty when I have one in hand. With white-fronts, I'm amazed how there doesn't seem to be a decline in the number that I see locally. But I don't get out as much as before.
CODE[203-261-051299

KOTZEBUE. GEESE. DUCKS. POPULATION LEVELS. WEATHER.
It is hard to compare the number of waterfowl over the years. People say there were lots more in the past. But there is variability every year in the number of birds because of weather, wind, and food supply. It's hard to say there's more of any waterfowl now than 40 years ago. But the number of birds is one of those things that doesn't stand out for me. It kind of depends where you are staying and what you are doing. The Sisualik spit is off the flyway because it is so white. You have to go various distances back from here to get birds.
CODE[203-261-051299

KOTZEBUE. EMPEROR GEESE. WHITE-FRONTED GEESE. CAPE ESPENBERG. NESTING.
Emperor geese also have bright yellow legs like white-fronts. But they are not common like white-fronts. We might see one or two every year on this side of the sound. Espenberg is the farthest north that they normally nest. You'd have to classify emperors as a stray around here. Once someone found a nest in this area but that is very unusual. Their Iñupiaq name—nasautlik [spelling uncertain]—comes from their white head.
CODE[203-261-051299

KOTZEBUE. WHITE-FRONTED GEESE. CANADA GEESE. EMPEROR GEESE. BRANT.
White-fronted and Canada geese are land-oriented. They get a great flavor from eating greens and berries. Emperor geese and brants are associated with each other as sea geese.
CODE[203-261-051299

KOTZEBUE. BRANT.
Brant arrive here carrying a load of fat. People like to eat them when they first arrive. After they lose their fat, people don't like them.
CODE[203-261-051299

KOTZEBUE. CACKLING CANADA GEESE. CANADA GEESE. POPULATION LEVELS.
I don't know if I've ever had a cackling Canada goose in hand. That's probably a good indication that they're not very common. Normally they are not in this area at all, but a few get mixed up with other geese. I'd be the first to say that there are probably stragglers that come through here. Canada geese vary in size. Size-wise Taverner's range from large mallards to much bigger.

CODE[203-261-051299

KOTZEBUE. CANADA GEESE. WHITE-FRONTED GEESE. NESTING. SEASONALITY.
When you take one of the early migrants, it is more of a gamble with Canada geese than with white-fronts that any individual will be fat. Perhaps they are not as well prepared when they head north. They are also easy to call in in springtime. Canadas and white-fronts are so alike in habits and voice that a lot of hunters haven't noticed whether it's a white-front or Canada until they pick it up. Canada geese have a tendency to be more coastal nesters than white-fronts. They will have nests right on the edge of a lagoon or coastal situation. Most white-fronts are gone by the first of September but Canada geese will stay the latest. If the blackberry crop is good, Canada geese will be around in numbers until early or mid-October.
CODE[203-261-051299

KOTZEBUE. CANADA GEESE. POPULATION LEVELS. FEEDING.
There are probably less Canada geese than there used to be. There seems to be less. There are prime blackberry grounds around here. Canadas are blackberry geese. They even dig in the snow for them if there is an early snow.
CODE[203-261-051299

KOTZEBUE. CANADA GEESE. WHITE-FRONTED GEESE. HUNTING SEASON. NATURAL HISTORY.
A lot more Canada geese are taken in the fall than white-fronts. Our season starts in mid-August at berrypicking time. The wariness of white-fronts in the fall make them hard to catch in the fall. They are very difficult to approach. Canadas are relatively easy to get in the fall. They don't watch where they fly as much. The real highlight of goose hunting for people here is the springtime. In fall, caribou are around. In fall, people who are berrypicking will get a goose for the pot. Non-Natives in Kotzebue will hunt waterfowl in the fall. People who want to fill their freezers with birds will hunt in the fall. Spring birds are all right for the freezer, but the quality of fall birds is better for the freezer.
CODE[203-261-051299

KOTZEBUE. SNOW GEESE. POPULATION LEVELS. SEASONALITY. WEATHER. MIGRATION.
With snow geese, there is a great deal of variability between the years. Depending on their path through here, sometimes we see lots and sometimes we see very few. These are Wrangel Island-oriented snow geese. One year there was a lead from Espenberg to Sealing Point and it was brown on the tundra. Flock after flock of snow geese went by. They were even attracted by the laundry we had hanging out. Migrating birds tend to follow a line. Everything tends to do that. Weather fronts may have the greatest effect on where birds migrate. Snow geese as far as I know do not constantly follow the coastline. I don't know where they normally cross the Seward Peninsula. Sometimes they will follow the coast. In the falltime, snow geese miss this area altogether. Occasionally two to three flocks come through in the falltime.
CODE[203-261-051299

KOTZEBUE. SNOW GEESE. WHITE-FRONTED GEESE. CANADA GEESE. FEEDING. SEASONALITY. PREFERENCE. MIGRATION.
Snow geese come a little bit later than white-fronts and Canadas but not by much. They eat old berries and cotton grass sprouts. They are not too particular and will eat anything greening. They come right when there begins to be standing water over the tundra. Most all of the snow geese go on, but rarely there will be one nest around here. Snow geese are very desirable for food. They come in fat and are a preferred bird, as much preferred or more so than white-fronts. By the time snow geese come, they outshine everything else available.
CODE[203-261-051299

KOTZEBUE. SNOW GEESE. HUNTING METHODS. MIGRATION.
Snow geese can be hard to get because you have to be where they are. You can make decoys out of dark tundra and white paper. They are a great colony bird – they feed, nest, and travel together. Decoys are a great attractant for that reason. Snow geese can't seem to figure out what a person is crawling toward them on all fours in a white calico parkie. It is very effective and something people have known for a long time. They don't take flight. They might think it is snow geese coming towards them. Snow geese pass through here in a week or ten days. Maybe two weeks. Anything that falls out of the ten-day period when you first see them would be unexpected.
CODE[203-261-051299

KOTZEBUE. WHITE-FRONTED GEESE. CANADA GEESE. SNOW GEESE. BRANT. PREFERENCE. MIGRATION.
Preference for birds in the springtime follows a time line. White-fronts are first, so they are preferred. By the time snow geese get here, people would probably shoot only snow geese. By that time there is more of a chance of getting skinny Canadas. Brant are preferred by the time they come. Sometimes brant come with snow geese but generally brant are later than snow geese. By coming later, brant automatically fall into the most preferred. When they first arrive here, they are known to be quite fat – much fatter than white-fronts when they come. Brants are about the fattest waterfowl to arrive. If a brant is not fat, then it is diseased.
CODE[203-261-051299

KOTZEBUE. GEESE. DUCKS. HUNTING METHODS.
Most spring hunting is pass shooting where birds pass through. Places where they pass through on migration or on their way to feeding areas.
CODE[203-261-051299

KOTZEBUE. BRANT. NATURAL HISTORY. FEEDING. WHITE-FRONTED GEESE.
Brants are chow hounds. They follow each other around. By the time they get here they are having to change to something other than eelgrass to eat because we don't have any eelgrass. Here they eat an aquatic, ice-rafted plant. When the ice lifts up, it pulls the roots and everything up. It is a starchy root that looks like tiny cashew nuts. By the time the brants arrive, the ice has lifted. The white strips of this plant along the ice edges of Kobuk Lake is a favored food of waterfowl. Brant are extremely food

conscious. Part of their enjoyment in life is gobbling up food with other brants. White-fronts don't mind if there is food. They come in fat because they can ignore food. Brant will go after the green algae that gets on nets if other food is not available.
CODE[203-261-051299

KOTZEBUE. BRANT. NESTING. EMPEROR GEESE. NATURAL HISTORY. POPULATION LEVELS. USE AREA.
Nesting brant around here are rare but not as rare as emperor geese. There might be two or three nests together. There may have been more nesting brants here locally in the past. The Noatak delta was a nesting area for brant in the past. Then they disappeared. In the past 10 years, brant have started trying to reestablish nesting there. Maybe there are ten nests. I've heard of them being there for three or four years in a row. There is no inland activity by brants. Ivik is a heavy use area, a spring staging area. The attraction there is food because of the everlasting ice on Kobuk Lake compared to channels that open up earlier.
CODE[203-261-051299

KOTZEBUE. LOON. PREFERENCE. POPULATION LEVELS. NESTING.
Loons are good to eat on migration but hunting stops before nesting. A loon is a loon in the pot. There is no preference for one or the another. The yellow-billed loon is scarcer than it used to be. They nest in a lake behind Sealing Point. I wouldn't be surprised if loons could roll their eggs out of their nests into the water and get them back again. Their nests are situated such that a boat wake could wash them out.
CODE[203-261-051299

KOTZEBUE. TUNDRA SWAN. NATURAL HISTORY. PREFERENCE.
With swans, if you choose a young one, you run the risk of getting a skinny one. There are usually differences in sizes and broods that you can use to know which young one might be good. But the best bet is to get an adult from a flock of all adults before the brooding ones arrive in the area. You can get super fat ones this way. There are 300-400 swans on the Noatak delta that don't take part in nesting. Young swans don't start to show up in staging flocks until mid-September. Swans don't breed until they are two or three years old. The choice swan meat are 2-3 year olds with a few gray feathers. I wouldn't say there is a difference between spring and fall. But I would be aware of a family group with young ones.
CODE[203-261-051299

KOTZEBUE. TUNDRA SWAN. FOOD PREPARATION.
If you know you have an old swan, there are things you can do when you cook it. By pot roasting it -- watching it close and watching the water -- you can cook anything soft. It has a pressure cooking effect.
CODE[203-261-051299

KOTZEBUE. TUNDRA SWAN. POPULATION LEVELS.
Swans have increased in number. There are more swans than before. The reason for this is that hardly anyone goes muskrat hunting anymore. When muskrat hunters are

out, swans are in the meat of production. The earlier nesting swans are the most successful. The human factor of disturbance from people in muskrat camp had an effect. Now in the past ten years, hardly anyone goes to muskrat camp. Now swan pairs are on even small lakes around here.
CODE[203-261-051299

KOTZEBUE. TUNDRA SWAN. PROCESSING. FEEDING. NATURAL HISTORY.
Swans are a lot of work. They have many feathers. I pluck them while they are warm because it is easier that way. I like to get a swan for my wife's birthday. That is early in June at the time when a group of non-breeders arrive. Non-breeder swans graze patches of new greens as the snow and ice melt. They are really noisy because they are establishing relationships. They spend two or three summers getting to know each other. They are not laying eggs, just eating greens and getting real fat once they arrive here.
CODE[203-261-051299

KOTZEBUE. SCOTER. SCAUP.
Scoters and scaups are about the last migrants to arrive that are fat.
CODE[203-261-051299

KOTZEBUE. SHORT-EARED OWL.
Short-eared owls show up about this time of year [early May].
CODE[203-261-051299

KOTZEBUE. COMMON EIDER. NESTING. STELLER'S EIDER. SPECTACLED EIDER. POPULATION LEVELS. SEASONALITY.
A time or two we get common eider on the Christmas bird count. There is sporadic nesting of common eider near Sealing Point. Any other kind of nesting eider would be accidental around here. We could have had a Steller's eider nesting here one time. That information is not based on eggs, but on young birds brought in. Spectacled eiders are seen in pairs or threes or fours about the time the ice is floating on the beach. Steller's and spectacled eiders are rare all around, not just in nesting.
CODE[203-261-051299

KOTZEBUE. KING EIDER. USE AREA. POPULATION LEVELS. WEATHER. NATURAL HISTORY.
From Sisualik to the port site, king eider are rare, but they are extremely common on the other side of the port site. Kivalina and Point Hope get a heavy hit of king eiders. The only time I saw lots of them was one year about this time when there were strong southerly winds and flock after flock went through Sealing Point. A south wind closes leads so a definite flight pattern is not there. The consistent flight pattern of king eiders along the leads put them in league with bowheads and belugas and leads them into Point Hope. South winds fracture the leads and push the birds more towards shore. Seabirds tend to follow the leads and not make a straight shot. The more consistent far offshore leads are the ones that bowheads, king eiders, etc. follow. Weather highs and lows probably affect birds, too.
CODE[203-261-051299

KOTZEBUE. COMMON EIDER. MIGRATION. SEASONALITY.
Common eiders are early arrivals. In some years, we probably have overwintering eiders, if there is enough wind or mild temperatures to have water. Some years we find frozen ones, usually common eiders. In the springtime, people hunt common eiders. They are normally nice and fat and a desired bird. They are usually harvested by people out seal hunting.
CODE[203-261-051299

KOTZEBUE. COMMON EIDER. EGGS. NATURAL HISTORY. POPULATION LEVELS. PREFERENCE.
Eiders are the only bird that is shot off the nest. You get a nestful of eggs and also a very fat duck. Females carry fat into egg laying. There is not much difference in coomon eider population over the years. There are never a great deal around. They are a very large bird. Large and fat and with a different flavor. In the falltime, it is a different picture. This year's production of common eider can starve to death and is not a particularly desired food. When arctic cod are abundant, eider can be rather choice. They can be nice and fat in falltime. But it is rare for them to be fat in the fall. They are more likely to be lean.
CODE[203-261-051299

KOTZEBUE. GULL EGGS. ARCTIC TERN EGGS. DUCK EGGS. SWAN EGGS. MURRE EGGS.
Gull eggs are the big thing. They are in known areas, close to town. Tern eggs are utilized by people who know where they are -- they are tasty but not sought after. Duck eggs are hard to find, but when people had more time they looked for them. But there is no real effort anymore to seek out duck eggs. All the eggs are tasty. It doesn't matter which kind. One seagull egg works fine for a 2-egg cake. We don't really like swan eggs. They are so big. We don't go up the coast for murre eggs.
CODE[203-261-051299

KOTZEBUE. EGGS. PRESERVATION.
In the past, people used to boil eggs and put them in seal oil. People who lived near bird colonies put away eggs.
CODE[203-261-051299

KOTZEBUE. GULL EGGS. SEASONALITY. GOOSE EGG. NATURAL HISTORY.
The last week of May is the beginning of seagull egging, until the second week of June. You can keep getting fresh eggs if people keep picking them. If you put an egg in the water and it lies flat, then it is fresh. If it tips up, it has an embryo, and if it floats, it is about ready to hatch. One person recently found a goose egg in a seagull nest with two seagull eggs. We were wondering how that happened.
CODE[203-261-051299

KOTZEBUE. GEESE. MOLTING. NATURAL HISTORY. PINTAIL. WIGEON. TECHNOLOGY. HUNTING METHODS.

Molting birds are still there and there are enough people who know that who are still there. In some years, there is no activity in that line. In other years, there can be intense activity because of young adults who get into it. But relatively speaking, there are many fewer molting birds taken now than before. Molting birds can't fly and have number one feed, so they can get very fat. They don't use their muscles so their meat is very tender. Pintails are the most commonly taken molting bird along with some wigeons. Wigeons act differently. Pintails can be driven up onto land and freeze in place. You can reach down and pat them on the head, but most people wring their necks at that point. The old methods for taking molting birds were much more productive than modern technology. Driving them with three or four kayaks was much more deadly than racing around with a motorboat and shotgun. A few are taken quickly, but many get away that way. The taking of molting birds really diminished and continues to do so.

CODE[203-261-051299

# BIRD HUNTING IN NOATAK, ALASKA

November 1997 through October 1998

Results of a cooperative project by Maniilaq Association
and the Division of Subsistence, Alaska Department of Fish and Game,
funded by the U.S. Fish and Wildlife Service
April 1999

**Introduction**

Birds are important to families in northwest Alaska. They are an important part of the culture and traditional way of life of Alaska Natives. Birds and bird eggs are eaten for food, and feathers are used in hand-crafted items. This report presents information on bird hunting and harvests in Noatak for a 12-month period (November 1997-October 1998). The information results from a cooperative project between Maniilaq Association and the Alaska Department of Fish and Game.

**The Project**

Several groups worked together on the project to gather information on birds in Noatak. The Noatak IRA Council approved the project by resolution. A survey of households was done by a local researcher hired and supervised by Maniilaq Association. The project was designed by the Division of Subsistence, Alaska Department of Fish and Game, who also put the information into tables and into this report. Money for the project came from the U.S. Fish and Wildlife Service. Preliminary results were reviewed by Maniilaq and the Division of Subsistence, ADF&G.

**How the Information Was Collected**

A survey was used to gather information on bird harvests. Surveys were done in 38 households randomly selected from a total of 97 households (39 percent) in Noatak. Also, four bird hunters from Noatak were interviewed about bird ecology and traditional uses of birds. Surveys were done in January and February 1999 in Noatak. On the survey, people were asked about bird hunting during the 12-month period, November 1997 through October 1998. Participation in the survey was voluntary. To protect confidentiality, no person's name is used in any reports of the information.

**Findings**

Households in Noatak reported the following things about their use of birds and eggs in the 12-month period:

- Almost three-fourths of households used birds (see Fig. 4).
- More than one-half of households hunted birds (see Fig. 4).
- Sharing of birds was common. Almost one-half (47 percent) of households received birds from other families, and 37 percent of households gave birds to others (see Fig. 4).

- At least 15 kinds of birds were caught—white-fronted geese, Canada geese, snow geese, northern pintail, American wigeon, mallard, northern shoveler, green-winged teal, common merganser, black scoter, willow ptarmigan, rock ptarmigan, spruce grouse, snowy owl, and sandhill crane (see Table 1).

- An estimated 1,041 birds were caught by households in Noatak during the 12-month study period.

- The five kinds of birds caught in greatest numbers were willow ptarmigan (329 birds), Canada geese (214 birds), northern pintail (107 birds), mallard (100 birds), and white-fronted geese (82 birds) (see Table 1). These five kinds accounted for 80 percent of all the birds caught by Noatak hunters.

- An estimated 569 eggs were gathered by households in Noatak during the 12-month study period. These were all Canada geese and gull eggs (see Table 1).

- Birds were caught in every season of the year, with spring the season of the highest bird harvests (see Fig. 3).

- According to knowledgeable hunters, most of the Canada geese caught by Noatak residents are the subspecies called lesser Canada geese. One of the local names for these Canada geese is "cacklers." Classifying Canada geese harvests into subspecies ("lesser" or "cackling") proved difficult because of the different naming systems and the close resemblance of Canada geese subspecies in colored bird guides.

- Information from interviewed hunters about birds in the Noatak area is attached as an appendix.

**Computerized Data Files**

This information is available as computer files at Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752 (907-442-3311) or the Division of Subsistence, Alaska Department of Fish and Game, Box 3-2000, Juneau, Alaska 99802 (907-465-4147). Information requests can be made from either group.

**Acknowledgments**

A sincere thank-you is given to all households and hunters who generously agreed to be surveyed or interviewed for this project. A special thanks is given to Enoch Shiedt of Maniilaq Association, who obtained tribal council approvals, hired community assistants, and supervised data collection; Hilda Arey of Noatak, who conducted the household surveys; Susan Georgette of the Division of Subsistence, ADF&G, who trained surveyors, interviewed hunters, and wrote the report; and the Noatak IRA Council, who supported the project.

# Table 1. NOATAK
# Bird Harvests, November 1997-October 1998[1]

| Bird Species | | Total Harvests | | Bird Harvest By Season[2] | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Birds | Eggs | Winter | Spring | Summer | Fall | Unknown |
| **Geese** | White-fronted Geese | 82 | | | 82 | | | |
| | Emperor Geese | | | | | | | |
| | Canada Geese | 214 | 240 | | 214 | | | |
| | Snow Geese | 15 | | | 15 | | | |
| | Brant | | | | | | | |
| **Ducks** | Northern Pintail | 107 | | | 105 | 3 | | |
| | American Wigeon | 13 | | | 13 | | | |
| | Mallard | 100 | | | 94 | 5 | | |
| | Northern Shoveler | 31 | | | 31 | | | |
| | Greater Scaup | | | | | | | |
| | Lesser Scaup | | | | | | | |
| | Canvasback | | | | | | | |
| | Green-winged Teal | 26 | | | 26 | | | |
| | Common Merganser | 38 | | | | | 38 | |
| | Red-breasted Merganser | | | | | | | |
| | Bufflehead | | | | | | | |
| | Harlequin | | | | | | | |
| | Oldsquaw | | | | | | | |
| | Common Goldeneye | | | | | | | |
| | Black Scoter | 26 | | | 26 | | | |
| | Surf Scoter | | | | | | | |
| | White-winged Scoter | | | | | | | |
| | Common Eider | | | | | | | |
| | King Eider | | | | | | | |
| | Spectacled Eider | | | | | | | |
| | Steller's Eider | | | | | | | |
| **Loons** | Common Loon | | | | | | | |
| | Pacific (Arctic) Loon | | | | | | | |
| | Red-throated Loon | | | | | | | |
| | Yellow-billed Loon | | | | | | | |
| **Seabirds** | Common Murre | | | | | | | |
| | Thick-billed Murre | | | | | | | |
| | Black Guillemot | | | | | | | |
| | Sabine's Gull | | | | | | | |
| | Mew Gull | | 133 | | | | | |
| | Glaucous Gull | | 64 | | | | | |
| | Unknown Gull | | 133 | | | | | |
| | Arctic Tern | | | | | | | |
| | Auklets | | | | | | | |
| | Puffins | | | | | | | |
| **Shorebirds** | Plover | | | | | | | |
| | Common Snipe | | | | | | | |
| **Game Birds** | Willow Ptarmigan | 329 | | 278 | 51 | | | |
| | Rock Ptarmigan | 38 | | | 38 | | | |
| | Spruce Grouse | 13 | | | 13 | | | |
| **Snowy Owl** | | 5 | | | 5 | | | |
| **Sandhill Crane** | | 5 | | | 5 | | | |
| **Tundra Swan** | | | | | | | | |
| **TOTAL** | | **1,041** | **569** | **278** | **717** | **8** | **38** | |

[1] Based on a random sample of 38 of 97 households, expanded to all households. Data were collected by a local researcher on contract with Maniilaq Association, through cooperative agreements between ADFG, Division of Subsistence, Maniilaq Association, and US Fish & Wildlife Service. Research was approved by resolution of the Noatak IRA Council. Project funded by USFWS.

[2] Winter=Nov, Dec, Jan, Feb; Spring=Mar, Apr, May; Summer=Jun, Jul; Fall=Aug, Sep, Oct.

SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1998.

# NOATAK
# Bird Harvest Patterns
# November 1997 - October 1998

Fig. 1 **Noatak Bird Harvests, November 1997 - October 1998, by Bird Type**

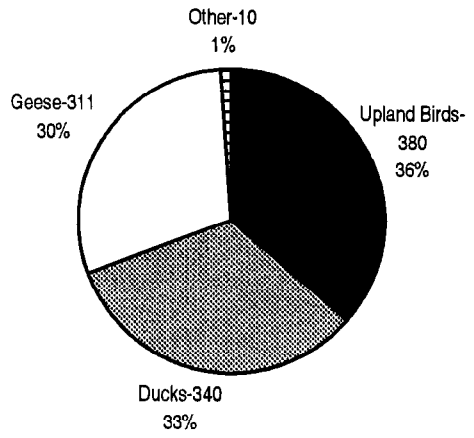



Fig. 2 **Noatak Egg Harvests, November 1997 - October 1998, by Bird Type**

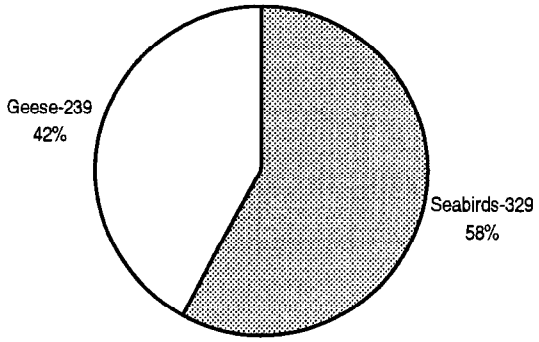



Fig. 3 **Noatak Bird Harvests, November 1997 - October 1998, by Season**

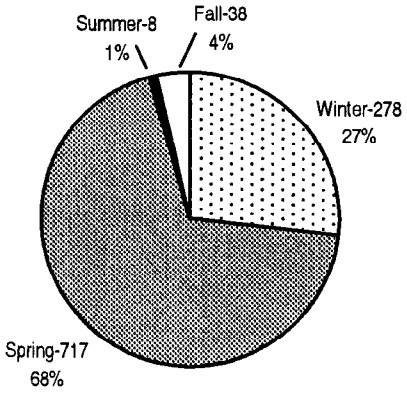
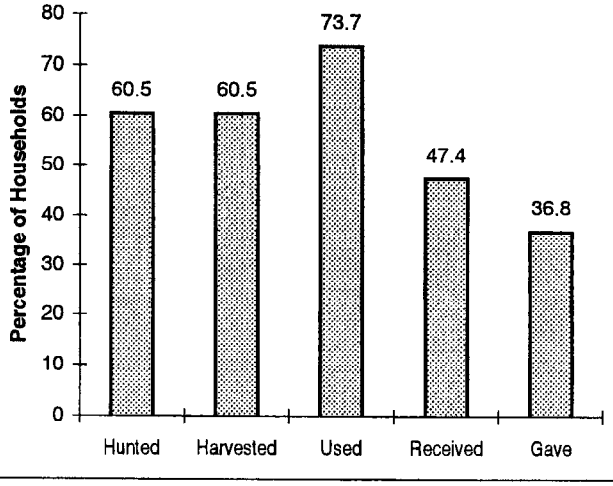



Fig. 4 **Percentage of Noatak Households that Hunted, Harvested, Used, Received, or Gave Birds, 1997-98**




SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1998.

# Migratory Bird Key Respondent Notes, 1998
# Noatak

NOATAK. CANADA GEESE. WHITE-FRONTED GEESE. POPULATION LEVELS. MIGRATION.
Lesser Canada geese and white-fronts are the geese we mostly have here. Canada geese are not declining. When you go out hunting on the right day and in the right place, there are lots of them. The white-fronted geese, the orange-feet kind, might have re-routed someplace. There are still quite a few but not as many as before. I have never seen real small Canada geese. The geese come up here from Anchorage and Fairbanks way. When out on the flats, I notice that they come from Kiana way. I don't see Canada and white-fronted geese mixed together when flying, but sometimes they are mixed when feeding.
CODE[250-30-121198

NOATAK. SNOW GEESE.
Snow geese hardly go through here. They do not come here all the time but once in awhile they come by in big bunches. Sometimes flying high or sometimes looking for a place to land. We see them on the ground once in awhile, but not too often.
CODE[250-30-121198

NOATAK. BRANT.
Brants go by down the coast in big bunches but they don't come around here.
CODE[250-30-121198

NOATAK. PINTAIL. MALLARD. GREEN-WINGED TEAL. SHOVELER. WIGEON. SCAUP. CANVASBACK.
We have pintails around here. Mallards are right along on the coast side and we have them in our lakes. One time I got one with a tag on its leg. We have teals around here and there. We see some shovelers around, but not too many. We mostly have mallards, pintails, some wigeons and scaups, hardly any canvasbacks. We never bother with teal because they are so small.
CODE[250-30-121198

NOATAK. OLDSQUAW.
We have oldsquaws around here, but not too many. Not like the coast side.
CODE[250-30-121198

NOATAK. HARLEQUIN.
We hardly see harlequins.
CODE[250-30-121198

NOATAK. RED-BREASTED MERGANSER. NATURAL HISTORY.
We have lots of red-breasted mergansers in our lakes and sloughs. Not lots, but they are there. Old-timers say that when there is no wind, mergansers can't fly. They need a

headwind to fly. One old-timer told met that if you holler at them when they go by, they will tumble [head-over-heels]. One time when I was waiting for muskrat at a lake where it was ice on one side and open water on my side, I saw a merganser coming along. I thought I would try what that old-timer said. So just when it got near me, I stood up and really hollered. It tumbled [head-over-heels] onto the ice. They can't walk on ice because their legs are too far behind. So I picked it up and put it back in the water.
CODE[250-30-121198

NOATAK. YELLOW-BILLED LOON. NON-FOOD PRODUCTS. COMMON LOON. RABBIT CREEK. FEEDING AREA. SEASONALITY.
On the creek mouths near the ocean side there are yellow-billed loons, the big ones with a yellow bill. There are some on the rivers and the main river, not too many on lakes. I get one once in awhile. You skin them out, dry them, put zipper, make a good bag. Real good for carrying things. They never get wet. We don't hunt loons unless we're hungry. We got lots of common loons around. As soon as water comes around, they come. We see common loons and yellow-billed loons right after the water comes. When our parents used to take us down to the coast near Rabbit Creek when we were kids, we'd see loons feeding by the bunches on fish at the mouth of creeks.
CODE[250-30-121198

NOATAK. LOON. NESTING. SEASONALITY. YELLOW-BILLED LOON. NATURAL HISTORY.
I've seen loon nests once in awhile. They never have more than two eggs. We see loons on a lake near Sivu. It seems like they own the lake! They go after birds that land on the lake. Our cook saw a loon sneak on a bird that landed in the lake and kill it. It poked the bird with its bill and crippled it. Loons are dangerous if they have young ones. They can poke holes in the bottom of your kayak. King loons are good eating. They stay around all summer, but leave earlier than some ducks.
CODE[250-30-121198

NOATAK. KING EIDER. COMMON EIDER. FOOD PREPARATION. OLDSQUAW. MURRE. NATURAL HISTORY.
We don't go for eiders. When they first come around, they are fat. We see king and common eider along the coast. When it's the morning hour, they can't even fly because they're too stiff. They can't fly until they warm up. Coastal people like eiders rare. They gut them, hang them up for a week or two, then skin them and cook them. Eiders, oldsquaws, and murres. That's a favorite of the old-timers.
CODE[250-30-121198

NOATAK. BLACK SCOTER. WHITE-WINGED SCOTER. KIVALINA. PREFERENCES.
We have either black scoters or white-winged scoters. They are all black, but they don't have that orange bulb on their beak. Their beak is more like the white-winged scoter. We call them "black ducks." We have some but not too many. People sometimes call them "devil ducks" because of their color. There were lots of them at the river mouth near Kivalina when I was there one time fishing for trout. Kivalina people never try to get them, even though they have shotgun right there. I ask them why they never try to get them. "That's my favorite," I said. "They're fat." Maybe because of the name.

CODE[250-30-121198

NOATAK. BIRD.
There is some kind of bird not here [on the bird chart]. They have to run a long ways before they get off. It sounds like a jet.
CODE[250-30-121198

NOATAK. MURRE. NATURAL HISTORY. EIDER. FOOD PREPARATION.
Once murres start fighting, they won't quit. Even if you pick them up they will fight in the boat. Once they get started they won't stop. I don't know what they fight about. People like to age them like eiders.
CODE[250-30-121198

NOATAK. GEESE. DUCKS. SERPENTINE. MIGRATION.
One time when I was at Serpentine in August, bunch after bunch of birds went by on their way south. All kinds.
CODE[250-30-121198

NOATAK. SANDHILL CRANE. NESTING.
Cranes always circle to get high. They like to go up where the air is light. People don't hunt them much. If I have to, I get one in the spring when they first come. They have nests in the tundra.
CODE[250-30-121198

NOATAK. GULL EGGS. GEESE EGGS.
If people get eggs, it's mostly seagulls and geese. Sometimes people in boats go upriver and look for them. Not too often.
CODE[250-30-121198

NOATAK. ARCTIC TERN.
Terns lay eggs right on the rocks with nothing to protect them.
CODE[250-30-121198

NOATAK. SNIPE.
We don't hunt snipes.
CODE[250-30-121198

NOATAK. SPRUCE GROUSE.
Hardly any spruce grouse around here.
CODE[250-30-121198

NOATAK. TUNDRA SWAN. KOTZEBUE. POPULATION LEVELS. NON-FOOD PRODUCTS.
There are lots of swans around the Kotzebue area in the springtime. I don't know why they got to be so many. We hardly hunt them. One time I got one, skinned it out, and used it for a toolbox. My wife put cloth on the inside.
CODE[250-30-121198

NOATAK. GEESE. MOLTING. SEALING POINT. NUVUGRAQ. SELAWIK. NOORVIK.
I never go after molting geese much. Sometimes people come across them on the river. Usually people are busy at Sealing Point or Nuvugraq in July. But at Sivu they go after them sometimes. Selawik and Noorvik guys go after them. They know the lakes and areas where molting birds are. It's something that is mostly lost up this way.
CODE[250-30-121198

NOATAK. WULIK RIVER. CACKLING CANADA GEESE. HUNTING AREAS.
I once saw a flock of small Canada geese many years ago near the Wulik. People hunt birds on the flats, towards Wulik, or near the ocean. There is a grassy spot on the flats that people try to get to. Tall grass. The birds all funnel through there for some reason. It's always a good place for hunting.
CODE[250-30-121198

NOATAK. EIDER. DOG FOOD. SEAL.
In the 1950s and '60s, we used to get lots of eiders for dog food because dogs got tired of eating seals.

NOATAK. HUNTING AREA. RABBIT CREEK. HARVEST LEVELS. GEESE.
Sometimes I hunt near Rabbit Creek on the coast in springtime. There is often no snow there when there is still snow around here. Lots of geese there at the right time of year. Once another hunter and I got 56 geese on a hunting trip down there.
CODE[250-29-121198

NOATAK. SANDHILL CRANE.
I don't like to eat cranes because they feed on meat and carcasses. But I get them once in awhile for elders who want to eat one.
CODE[250-29-121198

NOATAK. BRANT. MIGRATION.
Brants come through upriver near Art Fields' camp. They come across the flats, come in low. After break-up I've seen them like a snag on a river, a big group of them.
CODE[250-29-121198

NOATAK. SNOW GEESE. MIGRATION. WHITE-FRONTED GEESE. CANADA GEESE.
I see snow geese when I go to the coast. We only see them in springtime. When they fly through here they are mostly going east to west. There is not much time difference between when the snow geese arrive and when the other geese arrive. The snow geese arrive only a week or so after the white-fronts and Canada geese.
CODE[250-29-121198

NOATAK. EMPEROR GEESE.
I've only once caught an emperor goose. It was in the springtime.
CODE[250-29-121198

NOATAK. MERGANSER. OLDSQUAW. BLACK SCOTER. SURF SCOTER.
We see mergansers on the river. Oldsquaws are normally on the coast but some are around here. Black scoters are in the river after break-up and nest on lakes. We see surf scoters right after break-up on the river.
CODE[250-29-121198

NOATAK. PINTAIL. WIGEON. MALLARD.
There are lots of pintails and wigeons in the river. We call pintails "night-shifters" because they start flying at sunset and fly until two or three in the morning. We also have mallards. They are more of a quiet creek kind of duck.
CODE[250-29-121198

NOATAK. EIDER.
We very seldom see eiders. Once in awhile there is a lost one around here.
CODE[250-29-121198

NOATAK. YELLOW-BILLED LOON. RED-THROATED LOON. POPULATION LEVELS. NON-FOOD PRODUCTS.
The yellow-billed loon is what we call the king loon. Every now and then we see a red-throated loon in a lake. The other ones we see in the rivers. The numbers of loons haven't gone down. They taste fishy and people don't hunt them much. Sometimes people use their skins to make a bag. They are light and there is lots of room in them for a tool box.
CODE[250-29-121198

NOATAK. GULL. NESTING. SABINE'S GULL.
There are gulls all around here. They have nests on gravel bars or sand bars. Sabine's gulls you can get close to. They're not afraid of people.
CODE[250-29-121198

NOATAK. ARCTIC TERN. EGGS.
People don't get tern eggs.
CODE[250-29-121198

NOATAK. ROCK PTARMIGAN.
There are lots of rock ptarmigan around in the mountains. They come down here, too. When you see them in the snow, they look almost pink. One time I got some and noticed they looked pink. I showed them to an elder who told me what they were.
CODE[250-29-121198

NOATAK. WILLOW PTARMIGAN. POPULATION LEVELS.
Willow ptarmigan are good eating. They never stay in one area. They come and go. I never notice much that they change in number. We don't hunt them as much now that the elders are gone.
CODE[250-29-121198

NOATAK. SPRUCE GROUSE.
We have spruce grouse around here.
CODE[250-29-121198

NOATAK. SNOWY OWL.
We see snowy owls out on the flats fairly often. Usually they are on the coast this time of year. I tried one once. The meat is good when they are fat. Any meat is good if it's fat.
CODE[250-29-121198

NOATAK. TUNDRA SWAN. POPULATION LEVELS. GEESE. NATURAL HISTORY.
Tundra swans are best if halfway up their neck or a little above is darker. Those are the young ones. Those are the only ones to get. Swans are going up in number. From two to three miles below the village to up above the village, there are lots of swans wherever there is sand. Swans might like to have sand in their gullet, like geese have rocks. Geese mostly have white rocks in their gullet. Not brown or black. They must like the white rocks for some reason.
CODE[250-29-121198

NOATAK. HUNTING SEASON. GEESE. DUCKS.
Almost all hunting of birds around here is in the springtime. Maybe some people go to the lower Noatak in the fall, but most all of it is in the spring.
CODE[250-29-121198

NOATAK. SHOVELER. SCAUP. COMMON GOLDENEYE.
Shovelers are in the rivers. We see them quite a lot. Scaups are in lakes and quiet water. Every now and then we see common goldeneyes. We've shot some in the lower part of the river.
CODE[250-29-121198

NOATAK. GEESE. DUCKS. MOLTING. HUNTING METHODS. SCOTER. SCAUP. WHITE-FRONTED GEESE. TUNDRA SWAN.
Birds molt in July, maybe until the young ones are fully fledged. Birds hide a lot when molting. I've hunted molting birds once in awhile. Scoters, scaups, and white-fronts are the main ones I've looked for when molting. On lakes when the water is clear and about three feet deep, you can see scaups under the water. You can spear them with a pole, then they will pop up, you grab them and wring their necks and throw them in the boat. You can also find a creek with a good lake at the end. There is a little creek down a ways with a big lake that has lots of scoters, scaups, swans, and white-fronts. The scaups stay in the lake. The geese come up and down from the tundra to eat berries. The swans stay on the lakes when molting. When the birds are in the water, we shoot at them with shotguns when they come up. When they are on land, we chase them but they are hard to catch. If you catch the first one in the lead, then all the others will lay down. You can walk back and wring their necks. You can tell the adults and the young ones. You can get only the adults if you want, so you can recycle the young ones. We

don't get them all, just the ones we want. There is one lake where you can get molting Canadas and white-fronts around 4th of July.
CODE[250-29-121198

NOATAK. WHITE-FRONTED GEESE. TUNDRA SWAN. SEASONALITY.
We never see white-fronts in late fall. The swans stay late. There is one lake that is just covered in swans. But lots of boating and 4-wheeler traffic might change that.
CODE[250-29-121198

NOATAK. GEESE. PINTAIL. EGGS. GULL. CUSTOMARY RULES.
If you take all the eggs, geese and pintails will tear up the ground looking for their eggs. But if you leave a couple, they will lay some more. Mostly we get seagull eggs. With gulls, if you take all the eggs they will lay them again. But we don't take all of them. I tell my grandchildren not to take them all. We very seldom get goose eggs. You can eat young seagulls. They are just like chickens.
CODE[250-29-121198

NOATAK. HUNTING AREA. GEESE. DUCKS. HUNTING METHODS.
I mostly go to the coast in the springtime to hunt birds. It's slow going when the snow is soft. Often we spend the night. We hunt from blinds. Quite a few people are using decoys now. Decoys work really well but are expensive.
CODE[250-29-121198

NOATAK. GEESE. SEASONALITY. NATURAL HISTORY.
Geese are spookier in the fall than in the spring, maybe because they are protecting their young ones. You can't get close to them.
CODE[250-29-121198

NOATAK. GEESE. DUCKS. TUNDRA SWAN. PROCESSING.
Birds are easy to pluck as long as there is still body heat in them. My wife usually just skins them. Swans are the hardest to pluck because they are oily and slick. If you put birds in the freezer, then the skin and the fat comes off when you try to pluck them.
CODE[250-29-121198

NOATAK. MURRE.
There are lots of murres in the ocean.
CODE[250-29-121198

NOATAK. STEEL SHOT. TECHNOLOGY.
Steel shot is faster than lead shot because it is so light. It can even shoot farther if there is no wind. Steel shot does a lot of damage.
CODE[250-29-121198

NOATAK. CANADA GEESE. WHITE-FRONTED GEESE. EMPEROR GEESE. SNOW GEESE. BRANT.
We mostly have Canadian geese and speckle-bellies [white-fronts]. No emperor geese around here. We see snow geese but only in the springtime. Brants are only in the ocean. They go through the ocean.
CODE[250-18-121098

NOATAK. HUNTING SEASON. HUNTING AREA. GEESE. DUCKS. SEASONALITY. WULIK RIVER.
We only have about two weeks for bird hunting when they first come in the springtime. Usually in late April and May. We used to go hunt on the flats, but the trail is no good. The ice is too thin and we can't go across. We usually go towards the ocean and Wulik side now. We don't hunt birds in the falltime because they are flying too high.
CODE[250-18-121098

NOATAK. GEESE. POPULATION LEVELS. WEATHER.
There are about the same number of geese as when I was younger. When the weather is wet or cold, sometimes they come later. Sometimes the birds come late. That's what I don't like.
CODE[250-18-121098

NOATAK. PINTAIL. WIGEON. SHOVELER. SCAUP. MALLARD. GREEN-WINGED TEAL. SEASONALITY.
We have lots of pintails, wigeons, shovelers, scaups, and mallards. Pintails and wigeons stay all summer. Some of the greater scaups stay around in the big lakes. Sometimes we see green-winged teal. We hunt the pintails when they first come. They're fat. Sometimes in fall we go by Nuvugraq side and they always be fat.
CODE[250-18-121098

NOATAK. OLDSQUAW.
Ahaaliqs [oldsquaws] we see once in awhile but mostly on the coast. They pass by once in awhile. They are not here in the summertime. Maybe in the falltime we see them once in awhile when it starts freezing.
CODE[250-18-121098

NOATAK. MERGANSER. SURF SCOTER. WHITE-WINGED SCOTER.
Mergansers pass by in the falltime. Surf scoter and white-winged scoter come late in the springtime. Once in awhile they stay around in the summertime downriver. I never try to get these.
CODE[250-18-121098

NOATAK. EIDER.
Eiders stay on the ocean side.
CODE[250-18-121098

NOATAK. COMMON LOON. YELLOW-BILLED LOON. EGGS. NATURAL HISTORY. NON-FOOD PRODUCTS. SKIN.
We see common loons and yellow-billed loons. We don't go for loon eggs. Loons are dangerous when they have eggs. If you have a kayak, they poke a hole in the bottom. Old people make baskets or tool boxes or shell bags with a zipper from loon skins. Even parkies. They used to use a lot of twine to close it up before there were zippers. When loons first come in the spring they are good to eat, but I never hunt them. If I was starving I would get them.
CODE[250-18-121098

NOATAK. GULL EGGS.
Sometimes we get seagull eggs, but not always.
CODE[250-18-121098

NOATAK. SNIPE.
Snipes are good to eat in the falltime. They always be in the flats. They are fat in falltime. My daddy said they always be fat when they first come in the springtime.
CODE[250-18-121098

NOATAK. PTARMIGAN.
We have lots of ptarmigan. The rock ones are near the mountains.
CODE[250-18-121098

NOATAK. TUNDRA SWAN. POPULATION LEVELS.
Lots of swans are all over now. There are bunches of them in lakes on the way to Kotzebue. We don't hunt them much. They are too big and women don't like to pluck them.
CODE[250-18-121098

NOATAK. SANDHILL CRANE.
We get cranes once in awhile. I never eat them in a long time. They are good to eat when they are fat.
CODE[250-18-121098

NOATAK. SNOWY OWL.
We always see snowy owls once in awhile. Sometimes in the flats. There might be more on the ocean side. I don't hunt them. People say they are good eating when they're fat.
CODE[250-18-121098

NOATAK. WHITE-FRONTED GEESE. CANADA GEESE. SANDHILL CRANE. SEASONALITY.
The white-fronts and Canadas usually arrive in late April. Cranes are usually the first birds to show up.
CODE[250-18-121098

NOATAK. WHITE-FRONTED GEESE. CANADA GEESE. SNOW GEESE.
Mostly we see white-fronts and Canadas. Snow geese pass by but they are pretty high and we don't get them. We see them in the springtime.
CODE[250-105-121098

NOATAK. GEESE. DUCKS. HUNTING SEASON.
Most bird hunting takes place in the springtime. In the falltime, sometimes people are lucky and get birds.
CODE[250-105-121098

NOATAK. CANADA GEESE. WHITE-FRONTED GEESE.
Sometimes Canada geese fly from right near the house. They used to fly right through here on top of the house. I've never noticed when white-fronts leave in the falltime. Canada geese stay around later and bunch up. We see small Canada geese mixed in together with the bigger ones.
CODE[250-105-121098

NOATAK. WEATHER. HUNTING CONDITIONS. GEESE. DUCKS.
The snow melted so fast last year that we hardly hunted in the spring. We went to the flats but the snow had all melted and the birds were all over.
CODE[250-105-121098

NOATAK. HUNTING AREA. HUNTING METHODS. GEESE. DUCKS.
We hunt the flats, the river, a good lake near Wulik, or go to the coast. We camp out or go for the day. We go by snowmachine and make blinds. Sometimes there are so many people hunting that you have to find other places. Sometimes there are so many geese that if you scare them with a sno-go they fly up and go back down.
CODE[250-105-121098

NOATAK. BRANT.
We see brants early in the spring sometimes on the river but we can't get close to them.
CODE[250-105-121098

NOATAK. PINTAIL. MALLARD. SHOVELER. DUCKS. HUNTING METHODS. NESTING.
We mostly have pintails and mallards, and also shovelers. We try to hunt ducks with snowmachines but it's real hard to get around by that time. We hunt ducks along the river, too. Those pintails mostly nest inside trees along the river. One time I saw young pintails walk right across the road in the village.
CODE[250-105-121098

NOATAK. OLDSQUAW.
We catch ahaaliqs [oldsquaws] along lakes and the river. They nest around here.
CODE[250-105-121098

NOATAK. WHITE-WINGED SCOTER.
White-winged scoters are fast little ducks. I never see their nests.

CODE[250-105-121098

NOATAK. COMMON EIDER. KING EIDER.
When trying to get ugruk, sometimes we get eiders along the beach. We spend the spring along the coast. We get common and king eiders.
CODE[250-105-121098

NOATAK. GULL EGGS.
We get seagull eggs along the river in May or June. We get them when we find them. Some people go to islands and get eggs.
CODE[250-105-121098

NOATAK. SNIPE.
I never hunt snipe.
CODE[250-105-121098

NOATAK. PTARMIGAN. POPULATION LEVELS.
Ptarmigan numbers pretty much stay the same. Lots get killed along the Red Dog road. They like to be along creeks in the winter where there is lots of food.
CODE[250-105-121098

NOATAK. SANDHILL CRANE. TUNDRA SWAN.
I never hunt cranes or swans.
CODE[250-105-121098

NOATAK. SANDHILL CRANE. GEESE. TUNDRA SWAN. SCOTER.
Cranes come first in the spring, then geese. Swans come later, maybe with the scoters.
CODE[250-105-121098

NOATAK. SNOWY OWL.
We see snowy owls all year-round.
CODE[250-105-121098

NOATAK. GEESE. DUCKS. POPULATION LEVELS.
There are about the same number of birds now as before. The snow conditions have melted early. If the birds aren't there where I hunt them, I hear them somewhere else.
CODE[250-105-121098

# BIRD HUNTING IN NOORVIK, ALASKA

November 1996 through October 1997

Results of a cooperative project by Maniilaq Association
and the Division of Subsistence, Alaska Department of Fish and Game,
*funded by the U.S. Fish and Wildlife Service*
March 1998

**Introduction**

Birds are important to families in northwest Alaska. They are an important part of the culture and traditional way of life of Alaska Natives. Birds and bird eggs are eaten for food, and feathers are used in hand-crafted items. This report presents information on bird hunting and harvests in Noorvik for a 12-month period (November 1996-October 1997). The information results from a cooperative project between Maniilaq Association and the Alaska Department of Fish and Game.

**The Project**

Several groups worked together on the project to gather information on birds at Noorvik. The Noorvik IRA Council approved the project by resolution. A survey of households was done by a local researcher hired and supervised by Maniilaq Association. The project was designed by the Division of Subsistence, Alaska Department of Fish and Game, who also put the information into tables and into this report. Money for the project came from the U.S. Fish and Wildlife Service. Preliminary results were reviewed by Maniilaq and the Division of Subsistence, ADF&G.

**How the Information Was Collected**

A survey was used to gather information on bird harvests. Surveys were done in 59 randomly selected households of a total of 121 households (49 percent) in Noorvik. Also, four bird hunters from Noorvik were interviewed about bird ecology and traditional uses of birds. Surveys were done in December 1997. On the survey, people were asked about bird hunting during the 12-month period, November 1996 through October 1997. Participation in the survey was voluntary. To protect confidentiality, no person's name is used in any reports of the information.

**Findings**

Households in Noorvik reported the following things about their use of birds and eggs in the 12-month period:

- Nearly all households (94.9 percent) used birds (see Fig. 4).
- More than three-fourths of households (78.0 percent) hunted birds (see Fig. 4).
- Sharing of birds was common. More than one-half (61.0 percent) of households received birds from other families, while 40.7 percent of households gave birds to others (see Fig. 4).
- At least 28 kinds of birds were caught – white-fronted geese, cackling and lesser Canada geese, snow geese, brant, northern pintail, American wigeon, mallard, northern shoveler,

greater and lesser scaup, canvasback, green-winged teal, harlequin, oldsquaw, common goldeneye, black scoter, surf scoter, white-winged scoter, king eider, common loon, Pacific loon, red-throated loon, willow ptarmigan, rock ptarmigan, spruce grouse, sandhill crane, and tundra swan (see Table 1).

- At least four kinds of eggs were gathered during the study period – greater scaup, common murre, glaucous gull, and puffin.

- An estimated 5,166 birds were caught by households in Noorvik during the 12-month study period.

- The five kinds of birds caught in greatest numbers were willow ptarmigan (1,085), mallard (833), northern pintail (466 birds), oldsquaw (425 birds), and white-fronted geese (394 birds) (see Table 1). These five kinds accounted for about 62 percent of all the birds caught by Noorvik hunters.

- An estimated 392 eggs were gathered by households in Noorvik during the 12-month study period (see Table 1).

- Birds were caught in every season of the year, with spring the season of the highest bird harvest (see Fig. 3).

- The classifications of Canada geese harvests into "cackling Canada" or "lesser Canada" by hunters are uncertain because of the close resemblance of the two species and the difficulties distinguishing them in the colored bird guide used in the survey.

- Information from interviewed hunters about birds in the Noorvik area is attached as an appendix.

**Computerized Data Files**

This information is available as computer files at Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752 (907-442-3311) or the Division of Subsistence, Alaska Department of Fish and Game, Box 3-2000, Juneau, Alaska 99802 (907-465-4147). Information requests can be made from either group.

**Acknowledgments**

A sincere thank-you is given to all households and hunters who generously agreed to be surveyed or interviewed for this project. A special thanks is given to Art Ivanoff of Maniilaq Association, who obtained IRA approvals, hired community assistants, and supervised data collection; Lulu Good of Noorvik, who conducted the household surveys; Susan Georgette of the Division of Subsistence, ADF&G, who trained surveyors, interviewed hunters, and wrote the report; and the Noorvik IRA Council, who supported the project.

# Table 1. NOORVIK
# Bird Harvests, November 1996-October 1997[1]

| Bird Species | | Total Harvests | | Bird Harvest By Season[2] | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Birds | Eggs | Winter | Spring | Summer | Fall | Unknown |
| **Geese** | White-fronted Geese | 394 | | | 363 | | 31 | |
| | Emperor Geese | | | | | | | |
| | Cackling Canada Geese | 326 | | | 306 | | 21 | |
| | Lesser Canada Geese | 207 | | | 203 | 2 | 2 | |
| | Unknown Canada Geese | 10 | | | 10 | | | |
| | Snow Geese | 10 | | | 10 | | | |
| | Brant | 154 | | | 154 | | | |
| **Ducks** | Northern Pintail | 466 | | | 427 | | 39 | |
| | American Wigeon | 291 | | | 187 | | 105 | |
| | Mallard | 833 | | | 773 | 10 | 49 | |
| | Northern Shoveler | 70 | | | 64 | 6 | | |
| | Greater Scaup | 113 | 23 | | 103 | | 10 | |
| | Lesser Scaup | 111 | | | 90 | 21 | | |
| | Canvasback | 31 | | | 31 | | | |
| | Green-winged Teal | 31 | | | 21 | | 10 | |
| | Common Merganser | | | | | | | |
| | Red-breasted Merganser | | | | | | | |
| | Bufflehead | | | | | | | |
| | Harlequin | 2 | | | 2 | | | |
| | Oldsquaw | 425 | | | 379 | 33 | 12 | |
| | Common Goldeneye | 4 | | | 4 | | | |
| | Black Scoter | 357 | | | 199 | 10 | 29 | 119 |
| | Surf Scoter | 82 | | | 72 | | 10 | |
| | White-winged Scoter | 12 | | | | | 12 | |
| | Common Eider | | | | | | | |
| | King Eider | 8 | | | 8 | | | |
| | Spectacled Eider | | | | | | | |
| | Steller's Eider | | | | | | | |
| **Loons** | Common Loon | 59 | | 6 | 41 | 4 | 8 | |
| | Pacific (Arctic) Loon | 2 | | | 2 | | | |
| | Red-throated Loon | 6 | | | 6 | | | |
| | Yellow-billed Loon | | | | | | | |
| **Seabirds** | Common Murre | | 103 | | | | | |
| | Thick-billed Murre | | | | | | | |
| | Black Guillemot | | | | | | | |
| | Sabine's Gull | | | | | | | |
| | Mew Gull | | | | | | | |
| | Glaucous Gull | | 164 | | | | | |
| | Arctic Tern | | | | | | | |
| | Auklets | | | | | | | |
| | Pelagic Cormorant | | 103 | | | | | |
| | Other Seabirds | | | | | | | |
| **Shorebirds** | Plover | | | | | | | |
| | Common Snipe | | | | | | | |
| **Game Birds** | Willow Ptarmigan | 1,085 | | 445 | 328 | 51 | 260 | |
| | Rock Ptarmigan | 10 | | 10 | | | | |
| | Spruce Grouse | 18 | | 14 | | 4 | | |
| **Snowy Owl** | | | | | | | | |
| **Sandhill Crane** | | 16 | | | 16 | | | |
| ***Tundra Swan*** | | 33 | | | 23 | | 8 | 2 |
| **TOTAL** | | **5,166** | **392** | **476** | **3,821** | **142** | **607** | **121** |

[1] Based on a random sample of 59 of 121 households, expanded to all households. Data were collected by a local researcher on contract with Maniilaq Association, through cooperative agreements between ADFG, Division of Subsistence, Maniilaq Association, and US Fish and Wildlife Service. Research was approved by resolution of the Noorvik IRA Council. Project funded by USFWS.

[2] Winter=Nov, Dec, Jan, Feb; Spring=Mar, Apr, May; Summer=Jun, Jul; Fall=Aug, Sep, Oct.

SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1997.

# NOORVIK
# Bird Harvest Patterns
# November 1996-October 1997

Fig. 1 **Noorvik Bird Harvests, November 1996-October 1997, by Bird Type**

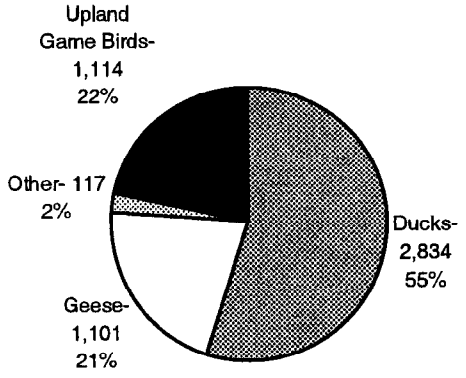



Fig. 2 **Noorvik Egg Harvests, November 1996-October 1997, by Bird Type**

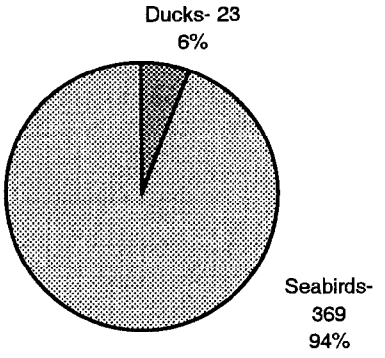



Fig. 3 **Noorvik Bird Harvests, November 1996-October 1997, by Season**

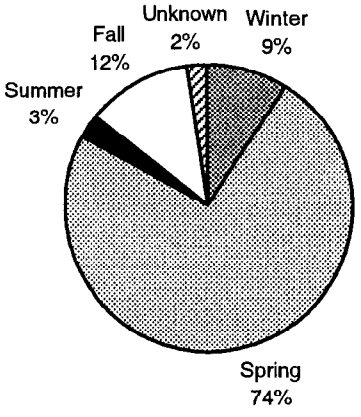
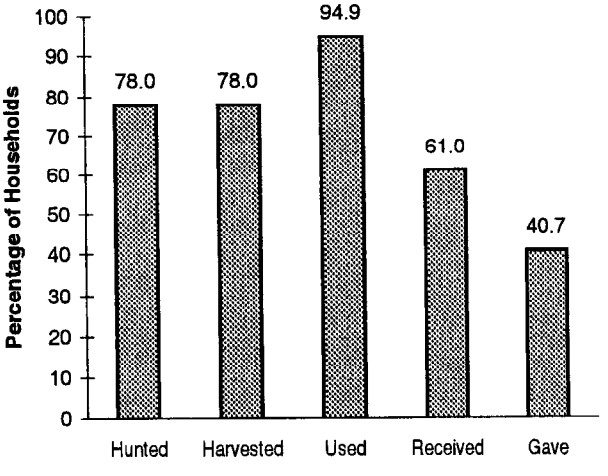



Fig. 4 **Percentage of Noorvik Households that Hunted, Harvested, Used, Received, or Gave Birds, 1996**




SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1997.

# Migratory Bird Field Notes
# Noorvik, Alaska
# November 1997

NOORVIK. WHITE-FRONTED GEESE. CANADA GEESE. SEASONALITY. BRANT. SNOW GEESE. DUCKS. NESTING. MIGRATION.
White-fronted geese come in the springtime, but they don't last all summer. They are gone early. They take off after the chicks hatch. The Canada geese stick around until freeze-up. Both the white-fronted geese and the Canada geese come at the same time in the spring. They nest by lakes and by the water. Some nest behind our camp downriver. The speckle-bellies and Canada geese come first, then the brants and snow geese. Ducks come later than geese.
CODE[253-79-112497

NOORVIK. BRANT. MIGRATION. SEASONALITY.
Brants just pass by in the springtime when the ice breaks. They don't nest around here. We don't see them in the fall. Maybe they see them on the coast.
CODE[253-79-112497

NOORVIK. SNOW GEESE. BRANT. MIGRATION. SEASONALITY. NESTING.
Snow geese go by in the springtime. People say they're fat, but I've never caught any. They travel further north to nest. They pass through with the brants, or just ahead of the brants.
CODE[253-79-112497

NOORVIK. SANDHILL CRANE. GEESE. NESTING. SEASONALITY.
Cranes come in early, after the geese or about the same time as the geese. A few come with the geese but most come later. I don't know where they go. A few stay and nest but most go through. People hunt cranes. When we were kids we used to eat them, and we still would. My dad used to get them with a shotgun. They have good eyes and ears and are hard to get close to. People say they eat dogs. When they come early and it's cold and there is no food, people say cranes go to the dump and eat dead dogs. That's what people say. Maybe one or two do, but I don't think many do that.
CODE[253-79-112497

NOORVIK. PINTAIL. MALLARD. WIGEON. SHOVELER. SCAUP. TEAL. NESTING. CANVASBACK. HUNTING SEASON.
Pintails, mallards, wigeons, shovelers, scaups, and teal are all around. They all nest here. We don't have many canvasbacks, but maybe a few. When people are out, they get ducks. They get ducks anytime they are out in camp or boating around. In summer sometimes we have no money and we try to live off the land.
CODE[253-79-112497

NOORVIK. GULL EGGS. DUCK EGGS.
People get eggs sometimes. But they are hard to find. They are not easy to find. We eat seagull eggs, duck eggs.
CODE[253-79-112497

NOORVIK. MERGANSER.
Mergansers taste too much like fish. It won't hurt you to eat them, it's just the taste.
CODE[253-79-112497

NOORVIK. OLDSQUAW. SEASONALITY. HABITAT.
Oldsquaws are down the coast on Kobuk Lake. They come when there is big water on Kobuk Lake and the big lakes. We eat oldsquaws. They are around all summer but we don't see them in late summer. Oldsquaws are more on the coast, not too much inland.
CODE[253-79-112497

NOORVIK. BLACK SCOTER. SURF SCOTER. HABITAT.
We have black scoters and a few surf scoters. They come in the spring as long as there is big water. We see them in groups of 4 or 5 or 7. Never seen big flocks. Scoters are out in the ocean, too.
CODE[253-79-112497

NOORVIK. EIDER.
There are hardly any eider ducks around here. They stay on the coast more.
CODE[253-79-112497

NOORVIK. LOON. POPULATION LEVELS. HUNTING SEASON.
Loons are around here. We eat them when they first come in. When they are fat, they are good. When skinny, they taste like fish. They're fish eaters. There are quite a bit of loons but people don't go after them much.
CODE[253-79-112497

NOORVIK. PLOVER.
We don't bother with plovers.
CODE[253-79-112497

NOORVIK. PTARMIGAN. HUNTING SEASON.
In springtime ptarmigan come around. When they come around, we hunt them. We hunt them in the wintertime. We don't really bother them in summertime.
CODE[253-79-112497

NOORVIK. SPRUCE GROUSE.
We use spruce hens but we don't see them too often.
CODE[253-79-112497

NOORVIK. SNOWY OWL. SEASONALITY. HUNTING METHODS.
White [snowy] owls come around in springtime. An old woman once asked me to catch her one but she said it was too skinny. She grew up eating them. I think I caught it with a .22.
CODE[253-79-112497

NOORVIK. TUNDRA SWAN. HABITAT. POPULATION LEVELS. SWAN EGGS.
There are lots of swans in Kobuk Lake. Down the coast and in Kobuk Lake there always be some. Swans are good to eat. They have a different taste from geese. In spring or fall time they are good to eat. Their population is going up. We eat swan eggs.
CODE[253-79-112497

NOORVIK. GEESE. POPULATION LEVELS.
We like to eat geese. When they first come in, they are fat. It seems like bird populations are about the same as always.
CODE[253-79-112497

NOORVIK. WHITE-FRONTED GEESE. POPULATION LEVELS. MIGRATION.
We have lots of white-fronted geese. They are here all summer. Some of them fly by and go further north towards the Noatak to nest. White-fronted geese are on the increase.
CODE[253-14-112497

NOORVIK. CANADA GEESE. NESTING. SEASONALITY.
Canada geese make nests around here. They show up in late April or May, depending on the weather. Canada geese are the most common geese around here.
CODE[253-14-112497

NOORVIK. SNOW GEESE. CANADA GEESE. WHITE-FRONTED GEESE. MIGRATION.
Snow geese come later than Canadas and white-fronts. If they pass by inland, they are way high. On the coast they are much lower. Not everyone catches snow geese, but there are certain spots you can go to catch them.
CODE[253-14-112497

NOORVIK. BRANT. MIGRATION. SEASONALITY.
Brants pass by a little later than other geese when all the rivers are open but the lakes have ice. They pass by when water is in the river but the coast and lakes have ice. If they pass by inland, they are way high. There are certain spots you can catch them, but not everyone catches brants.
CODE[253-14-112497

NOORVIK. PINTAIL. CANADA GEESE. WIGEON. MALLARD. SHOVELER. SEASONALITY. MIGRATION.
Pintails come about the same time as Canada geese. Wigeons come a little later or probably about the same time as Canada geese. Mallards come a little later, about the

same time as snow geese. Shovelers come about the same time as mallards. When they come depends on the weather.
CODE[253-14-112497

NOORVIK. CANVASBACK. MIGRATION.
Canvasbacks come, too, but we don't see them too often. They just pass by. I wouldn't really call them birds from around here.
CODE[253-14-112497

NOORVIK. SCAUP. TEAL. NESTING. HABITAT. POPULATION LEVELS.
Scaups nest here but are not abundant like pintails. Mostly they are by the big lakes. Teal nest around here.
CODE[253-14-112497

NOORVIK. MERGANSER. BUFFLEHEAD.
We don't see common mergansers too often. Buffleheads are not around here although I've seen them on lakes.
CODE[253-14-112497

NOORVIK. OLDSQUAW.
Oldsquaws pass by. In the springtime they pass by. People catch them when they have the chance. They are really oily.
CODE[253-14-112497

NOORVIK. BLACK SCOTER.
Black scoters are in the lakes. They are around all summer. We see them on and off, usually in family-sized groups of five to six at a time. On the lakes sometimes when they gather up we see them by the hundreds.
CODE[253-14-112497

NOORVIK. EIDER.
We don't see eiders.
CODE[253-14-112497

NOORVIK. COMMON LOON. ARCTIC LOON. YELLOW-BILLED LOON.
Common loons are all over. Arctic loon and yellow-billed loon are here, too.
CODE[253-14-112497

NOORVIK. GULL EGGS.
People used to get eggs around here. We had seagull eggs when I was younger.
CODE[253-14-112497

NOORVIK. PLOVER. SNIPE. PTARMIGAN. SPRUCE GROUSE.
Plovers, snipe, ptarmigan, and grouse are around here. We had lots of grouse this fall.
CODE[253-14-112497

NOORVIK. SNOWY OWL. SEASONALITY.
Snowy owls are around all winter. You'll see them in the higher places, mostly in the hills.
CODE[253-14-112497

NOORVIK. HUNTING SEASON. MOLTING. DUCKS. GEESE.
There is hunting for birds in both spring and fall. In spring, everyone goes out all at once when the birds pass by. Everyone will be out hunting birds when the birds pass by. In the fall, it takes more time for the birds to gather up. Hunting is more consistent and more spread out. People also hunt for molting birds sometimes.
CODE[253-14-112497

NOORVIK. HARVEST LEVELS. DUCKS. GEESE.
People probably take less birds now than in the past. People used to get lots of birds. But people weren't able to get around as easily. It was hard work to get some places. Now you can just get in a boat and get what you want, just like that, anytime you want. It wasn't like that in the past. There was also no white food in the past. Everyone ate Native food only.
CODE[253-14-112497

NOORVIK. WHITE-FRONTED GEESE. POPULATION LEVELS. HUNTING METHODS.
We have white-fronted geese. They come in the springtime. We have quite a bit. They nest like other birds. We call them "kigiyuk" because they bit at the rope when they used to be snared long ago.
CODE[253-50-112497

NOORVIK. SANDHILL CRANE. CANADA GEESE. MIGRATION.
Cranes are usually the first to come. They must be the toughest. Around April they start showing up. Then white-fronted geese. Every spring is different. Stormy sometimes. One spring Canada geese were the first to come. It depends on the weather when the birds come. Last spring geese came late in Shungnak. We had gone up there by boat, and while we were there the geese really started coming in.
CODE[253-50-112497

NOORVIK. SNOW GEESE. SEASONALITY. MIGRATION. NESTING.
Snow geese pass by here, just in the springtime. They don't nest around here. They go further north. Big flocks go by in the springtime.
CODE[253-50-112497

NOORVIK. BRANT. MIGRATION. SEASONALITY. NESTING.
Brant come by in the springtime. They nest further north. Once in a great while we see them pass through in the falltime. But they are skinny then.
CODE[253-50-112497

NOORVIK. PINTAIL. MALLARD. SCAUP. RED-BREASTED MERGANSER. NESTING. POPULATION LEVELS.
We have lots of pintails, lots of mallards. We have scaups. Once in a great while we see different kinds of ducks. We see red-breasted mergansers. They nest around here.
CODE[253-50-112497

NOORVIK. OLSQUAW. HABITAT.
Oldsquaws mostly stay on Kobuk Lake and the delta. They are called "aahaaliq" because of the sound they make. They are one of the fattest ducks. They come later than all the ducks. We see big flocks of them.
CODE[253-50-112497

NOORVIK. COMMON LOON. POPULATION LEVELS. PROCESSING. SKIN.
Common loons come a little later than other ducks. They got to have water to land. Some years there are lots. Some years few. We like to catch them in the springtime. They are good and fat when caught early. You pluck the feathers with hot water. Then skin the loon. Then you sew up the skin with the fat inside and boil it. Then the fat stays in the skin. It's real good. Then you eat the loon meat with the fat. We call it "qan...?"
CODE[253-50-112497

NOORVIK. DUCKS. GEESE. POPULATION LEVELS.
Some springs there are not many birds. Some springs there are lots of birds. There are usually lots of birds nesting a few bends above our camp below Noorvik.
CODE[253-50-112497

NOORVIK. HUNTING METHODS. HISTORY. DUCKS. GEESE.
When my mother was young, she said birds saved people from starvation. Famine time. She said birds saved many people from starvation. They snared birds in the old days. They would put rows of snares between two lakes.
CODE[253-50-112497

NOORVIK. SNOWY OWL.
We see a few snowy owls but we don't eat them.
CODE[253-50-112497

NOORVIK. EGGS.
When you take eggs from birds, they lay more but the eggs get smaller each time.
CODE[253-50-112497

NOORVIK. GREBE. PROCESSING.
We have a bird like a loon that's not pictured here. We call it sugli. It has feet far back. It can't walk. It's noisy. [She calls someone and finds out it is a grebe.] We have lots of grebes around here on lakes and in the fall. They are good to eat. We eat them like loons.

CODE[253-50-112497

NOORVIK. TUNDRA SWAN.
People get swans sometimes. They are fatter in the fall.
CODE[253-50-112497

NOORVIK. PROCESSING. PRESERVATION. OLD DAYS. DUCKS. GEESE.
We eat birds fresh and we freeze them. Sometimes we don't pluck them but freeze them with the innards and the feathers. They keep better that way. No freezer burn. That's the same with fish. They keep better with the innards. Before people had freezers, they ate them fresh or half-dried them. They used to half-dry them in the springtime in the old days. We also used to salt birds before we had freezers.
CODE[253-50-112497

NOORVIK. DUCKS. GEESE. POPULATION LEVELS.
There's not much change in the geese and duck populations. Little bit up and down, but mostly about the same.
CODE[253-50-112497

NOORVIK. WHITE-FRONTED GOOSE. CANADA GOOSE. SNOW GOOSE. BRANT. PINTAIL. SHOVELER. SCAUP. MALLARD. GREEN-WINGED TEAL. OLDSQUAW. SCOTER. COMMON LOON. YELLOW-BILLED LOON. MEW GULL. GLAUCOUS GULL. ARCTIC TERN. SABINE'S GULL. COMMON SNIPE. PTARMIGAN. SPRUCE GROUSE. SNOWY OWL. TUNDRA SWAN. SANDHILL CRANE. GREBE.
Iñupiaq names from Noorvik for birds:

| | |
|---|---|
| White-fronted goose | kigiyuk |
| Canada goose | tiŋmiaq |
| Snow goose | kaŋuq |
| Brant | liġliġnaq or niġliġnaq |
| Pintail | kurugaq |
| Shoveler | aluutaq |
| Scaup | qaqłutuuq |
| Mallard | ivugasrugruk |
| Green-winged teal | qiaŋiiraq |
| Oldsquaw | aahaaliq |
| Scoter | tuunġaaġruk |
| Common loon | malġi |
| Yellow-billed loon | tuutlik |
| Mew gull | nauyaq |
| Glaucous gull | nauyavasrugruk |
| Arctic tern | mitqutailaq |
| Sabine's gull | aqargigiaq |
| Common snipe | kuukukiaq |
| Ptarmigan | aqargiq |
| Spruce grouse | napaaqtum aqargiq |
| Snowy owl | ukpik |

| | |
|---|---|
| Tundra swan | qugruk |
| Sandhill crane | tatirgaq |
| Grebe | suġli |

CODE[253-74-112497

# Bird Harvests in Selawik, November 1993 through October 1994

**Results of a Cooperative Project by the**
**Division of Subsistence, Alaska Department of Fish and Game, in cooperation with**
**Maniilaq Assoc., the Selawik IRA Traditional Council, and the U.S. Fish and Wildlife Service**
**April 1995**

## Introduction

Birds are important to families in northwest Alaska. They are an important part of the culture and traditional way of life of Alaska Natives. Birds and bird eggs are eaten for food, and feathers are used in hand-crafted items. This report presents information on bird harvests in Selawik during November 1993 through October 1994. The information are results from a cooperative project in 1994-95.

## The Project

Several groups worked together on the project to gather information on birds at Selawik. The Selawik IRA Council approved the project by a letter of "non-objection" on September 6, 1994. A survey of households was done by a local researcher hired and supervised by the Selawik IRA Council. The project was designed by the Division of Subsistence, Alaska Department of Fish and Game, who also put the information into tables and into this report. Money for the project was given by the U.S. Fish and Wildlife Service. Preliminary results were reviewed by Maniilaq and the Division of Subsistence, ADF&G.

## How the Information Was Collected

A survey was used to gather information on bird harvests. Surveys were done in 65 of 131 households (49.6 percent) in Selawik. Also, three bird experts from Selawik were interviewed about bird ecology and traditional uses of birds. Surveys were done between November 29, 1994 and January 6, 1995 in Selawik. On the survey, people were asked about bird hunting during the 12-month period, November 1993 through October 1994. To protect confidentiality, no person's name will be used in any reports of the information, unless that person gives permission to do so.

## Findings

During the 12-month period, November 1993 through October 1994, based on a sample of 65 households in Selawik, it is estimated that:

- More than two thirds of the households used birds (89 households or 67.7 percent) (see Fig. 4).
- More than half of all households had bird hunters (70 households or 53.8 percent) (see Fig. 4).
- Sharing of birds was common -- about a third of the households (40 households or 30.8 percent) reported giving birds to other households, and almost half of the households (62 households or 47.7 percent) reported receiving birds from other households (see Fig. 4).
- At least 17 kinds of birds were harvested -- white-fronted geese, emperor geese, cackling Canada geese, lesser Canada geese, black brant, northern pintail, American wigeon, mallard, northwern shoveler, greater scaup, green-winged teal, common merganser, oldsquaw, black scoter, surf scoter, willow ptarmigan, and tundra swan (see Table 1).
- About 1,715 birds were harvested by households in Selawik during the 12-month period, November 1993-October 1994 (see Table 1).

- The top five birds in numbers harvested during the 12-month period were willow ptarmigan (331 birds), white-fronted geese (244 birds), lesser Canada geese (212 birds), cackling Canada geese (147 birds), and northern pintail (181 birds) (see Table 1).

- Birds were taken in spring (52.4 percent), fall (17.6 percent), and winter (17.6 percent), and summer (12.2 percent); the season was not known for some birds (0.1 percent) (see Fig. 3).

- While most birds are hunted in spring and early summer, some ducks and geese were also taken in the fall. Most ptarmigan were taken in winter, but a few were also taken in the spring. (see Table 1).

- The survey may have missed some bird eggs harvested in Selawik. Additional key respondent and survey work would help provide more complete information on historic and contemporary patterns of egg use.

- The classifications of Canada geese harvests into "cackling Canada" or "lesser Canada" by hunters are uncertain because of the close resemblance of the two species and the difficulties distinguishing them with the illustrations in the colored bird guide used in the survey. Additional work documenting harvested birds and bird classification systems would help to clarify this issue.

- The information on bird harvests are shown in detail in Table 1 and Figures 1-4.

- Information from hunting experts about birds and bird hunting in the Selawik area are attached as an appendix.

**Computerized Data Files**

This information is available as computer files at Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752 (907-443-5231) or the Division of Subsistence, Alaska Department of Fish and Game, Box 3-2000, Juneau, Alaska 99802 (907-465-4147). Information requests can be made from either group.

**Acknowledgments**

A thank you is given to all the households and bird hunting experts who graciously volunteered to be surveyed on the project. A special thanks is given to Tommy Ballot, Selawik IRA Council General Manager, who supervised data collection; Vernita Ballot of Selawik, who conducted the household surveys; Dave Andersen of the Division of Subsistence, ADF&G, who trained surveyors, interviewed expert hunters, and analyzed data; and the Selawik IRA Council, who gave support to the project.

# Table 1. SELAWIK
## Bird Harvests, November 1993-October 1994[1]

| Bird Species | | Total Harvests | | Bird Harvest By Season[2] | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Birds | Eggs | Winter | Spring | Summer | Fall | Unknown |
| **Geese** | White-fronted Geese | 244 | | | 238 | | 6 | |
| | Emperor Geese | 28 | | | 28 | | | |
| | Canada Geese | 403 | | | 326 | 20 | 56 | |
| | Snow Geese | | | | | | | |
| | Brant | 46 | | | 40 | 6 | | |
| **Ducks** | Northern Pintail | 181 | | | 73 | 28 | 81 | |
| | American Wigeon | 97 | | | 46 | 20 | 30 | |
| | Mallard | 95 | | | 42 | 38 | 14 | |
| | Northern Shoveler | 81 | | | 16 | 28 | 36 | |
| | Greater Scaup | 28 | | | 4 | | 24 | |
| | Lesser Scaup | | | | | | | |
| | Unknown Scaup | 10 | | | | | 10 | |
| | Canvasback | | | | | | | |
| | Green-winged Teal | 48 | | | | 24 | 24 | |
| | Common Merganser | 10 | | | | 10 | | |
| | Red-breasted Merganser | | | | | | | |
| | Bufflehead | | | | | | | |
| | Harlequin | | | | | | | |
| | Oldsquaw | 22 | | | 10 | 12 | | |
| | Common Goldeneye | | | | | | | |
| | Black Scoter | 77 | | | 48 | | 28 | |
| | Surf Scoter | 48 | | | 28 | 20 | | |
| | White-winged Scoter | | | | | | | |
| | Common Eider | | | | | | | |
| | King Eider | | | | | | | |
| | Spectacled Eider | | | | | | | |
| | Steller's Eider | | | | | | | |
| | Unknown Ducks | 2 | 2 | | | | | 2 |
| **Loons** | Common Loon | | | | | | | |
| | Pacific (Arctic) Loon | | | | | | | |
| | Red-throated Loon | | | | | | | |
| | Yellow-billed Loon | | | | | | | |
| **Seabirds** | Common Murre | | | | | | | |
| | Thick-billed Murre | | | | | | | |
| | Black Guillemot | | | | | | | |
| | Sabine's Gull | | | | | | | |
| | Mew Gull | | | | | | | |
| | Glaucous Gull | | | | | | | |
| | Arctic Tern | | | | | | | |
| | Auklets | | | | | | | |
| | Other Seabirds | | | | | | | |
| **Shorebirds** | Plover | | | | | | | |
| | Common Snipe | | | | | | | |
| **Game Birds** | Willow Ptarmigan | 331 | | 310 | 20 | | | |
| | Rock Ptarmigan | | | | | | | |
| | Spruce Grouse | | | | | | | |
| **Snowy Owl** | | | | | | | | |
| **Sandhill Crane** | | | | | | | | |
| **Tundra Swan** | | 10 | | | 2 | 8 | | |
| **TOTAL** | | **1,761** | **2** | **310** | **921** | **214** | **309** | **2** |

[1] Based on a random sample of 65 of 131 households, expanded to all households. Data were collected by a local researcher on contract with the Selawik IRA Council, through cooperative agreements between ADFG, Division of Subsistence and the Selawik IRA Council. Research was approved by resolution of the Selawik IRA Council. Project funded by USFWS.

[2] Winter=Nov, Dec, Jan, Feb; Spring=Mar, Apr, May; Summer=Jun, Jul; Fall=Aug, Sep, Oct.

SOURCE: Selawik IRA Council and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994.

# SELAWIK
## Bird Harvest Patterns
## November 1993 - October 1994

Fig. 1

**Selawik Bird Harvests, November 1993 - October 1994, by Bird Type**

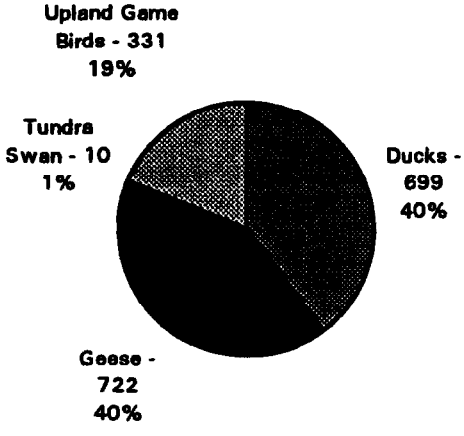



Fig. 2

**Selawik Egg Harvests, November 1993 - October 1994, by Bird Type**

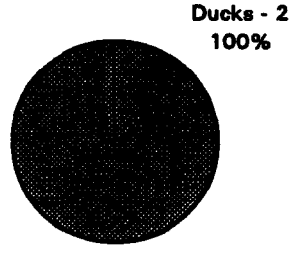



Fig. 3

**Selawik Bird Harvests, November 1993 - October 1994, by Season**

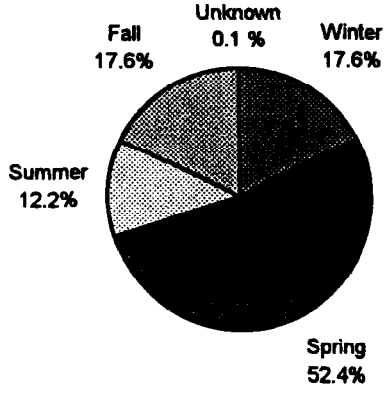
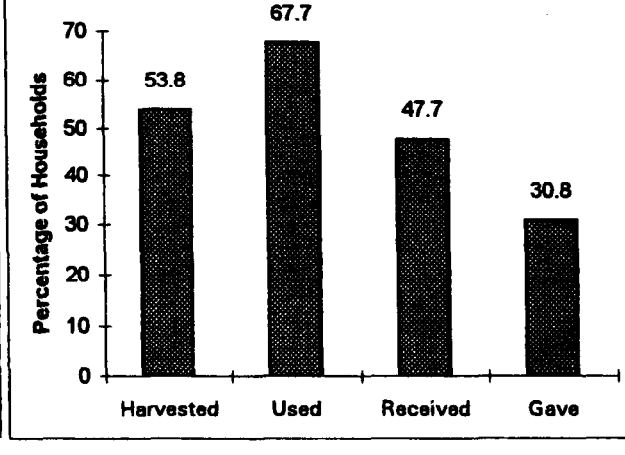



Fig. 4 **Percentage of Selawik Households that Harvested, Used, Received, or Gave Birds, Nov. 1993 - Oct. 1994**




SOURCE: Alaska Department of Fish and Game, Division of Subsistence, and the Selawik IRA Council, Household Survey, 1994.

# BIRD HUNTING IN SELAWIK, ALASKA

## November 1997 through October 1998

Results of a cooperative project by Maniilaq Association
and the Division of Subsistence, Alaska Department of Fish and Game,
funded by the U.S. Fish and Wildlife Service
April 1999

**Introduction**

Birds are important to families in northwest Alaska. They are an important part of the culture and traditional way of life of Alaska Natives. Birds and bird eggs are eaten for food, and feathers are used in hand-crafted items. This report presents information on bird hunting and harvests in Selawik for a 12-month period (November 1997-October 1998). The information results from a cooperative project between Maniilaq Association and the Alaska Department of Fish and Game.

**The Project**

Several groups worked together on the project to gather information on birds in Selawik. The Selawik IRA Council approved the project by resolution. A survey of households was done by a local researcher hired and supervised by Maniilaq Association. The project was designed by the Division of Subsistence, Alaska Department of Fish and Game, who also put the information into tables and into this report. Money for the project came from the U.S. Fish and Wildlife Service. Preliminary results were reviewed by Maniilaq and the Division of Subsistence, ADF&G.

**How the Information Was Collected**

A survey was used to gather information on bird harvests. Surveys were done in 60 households randomly selected from a total of 151 households (40 percent) in Selawik. Also, one bird hunter from Selawik was interviewed about bird ecology and traditional uses of birds. Surveys were done in December 1998 in Selawik. On the survey, people were asked about bird hunting during the 12-month period, November 1997 through October 1998. Participation in the survey was voluntary. To protect confidentiality, no person's name is used in any reports of the information.

**Findings**

Households in Selawik reported the following things about their use of birds and eggs in the 12-month period:

- Nearly all households used birds (see Fig. 4).
- Almost three-fourths of households hunted birds (see Fig. 4).
- Sharing of birds was common. Three-fourths of households gave birds to other families, and 55 percent of households received birds from others (see Fig. 4).

- At least 14 kinds of birds were caught—white-fronted geese, Canada geese, snow geese, brant, northern pintail, American wigeon, mallard, northern shoveler, lesser scaup, green-winged teal, black scoter, surf scoter, willow ptarmigan, and sandhill crane (see Table 1).

- An estimated 3,720 birds were caught by households in Selawik during the 12-month study period.

- The five kinds of birds caught in greatest numbers were willow ptarmigan (997 birds), Canada geese (687 birds), mallard (456 birds), northern shoveler (375 birds), and northern pintail (352 birds) (see Table 1). These five kinds accounted for 77 percent of all the birds caught by Selawik hunters.

- An estimated 63 eggs were gathered by households in Selawik during the 12-month study period. These were all Canada geese, northern pintail, and mallard eggs (see Table 1).

- Birds were caught in every season of the year, with spring the season of the highest bird harvests (see Fig. 3).

- According to knowledgeable hunters, most of the Canada geese caught by Selawik residents are the subspecies called lesser Canada geese. One of the local names for these Canada geese is "cacklers." Classifying Canada geese harvests into subspecies ("lesser" or "cackling") proved difficult because of the different naming systems and the close resemblance of Canada geese subspecies in colored bird guides.

- Information from interviewed hunters about birds in the Selawik area is attached as an appendix.

**Computerized Data Files**

This information is available as computer files at Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752 (907-442-3311) or the Division of Subsistence, Alaska Department of Fish and Game, Box 3-2000, Juneau, Alaska 99802 (907-465-4147). Information requests can be made from either group.

**Acknowledgments**

A sincere thank-you is given to all households and hunters who generously agreed to be surveyed or interviewed for this project. A special thanks is given to Enoch Shiedt of Maniilaq Association, who obtained tribal council approvals, hired community assistants, and supervised data collection; Tracy Sampson of Selawik, who conducted the household surveys; Susan Georgette of the Division of Subsistence, ADF&G, who trained surveyors, interviewed hunters, and wrote the report; and the Selawik IRA Council, who supported the project.

# Table 1. SELAWIK
# Bird Harvests, November 1997-October 1998[1]

| Bird Species | | Total Harvests | | Bird Harvest By Season[2] | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Birds | Eggs | Winter | Spring | Summer | Fall | Unknown |
| **Geese** | White-fronted Geese | 138 | | | 138 | | | |
| | Emperor Geese | | | | | | | |
| | Canada Geese | 687 | 13 | | 614 | 23 | 50 | |
| | Snow Geese | 3 | | | 3 | | | |
| | Brant | 76 | | | 70 | | 5 | |
| **Ducks** | Northern Pintail | 352 | 30 | | 131 | 58 | 164 | |
| | American Wigeon | 151 | | | | | 151 | |
| | Mallard | 456 | 20 | | 189 | 103 | 164 | |
| | Northern Shoveler | 375 | | | 65 | 76 | 234 | |
| | Greater Scaup | | | | | | | |
| | Lesser Scaup | 5 | | | 5 | | | |
| | Canvasback | | | | | | | |
| | Green-winged Teal | 58 | | | | | 58 | |
| | Common Merganser | | | | | | | |
| | Red-breasted Merganser | | | | | | | |
| | Bufflehead | | | | | | | |
| | Harlequin | | | | | | | |
| | Oldsquaw | | | | | | | |
| | Common Goldeneye | | | | | | | |
| | Black Scoter | 330 | | | 201 | 28 | 81 | 20 |
| | Surf Scoter | 40 | | | | 25 | 15 | |
| | White-winged Scoter | | | | | | | |
| | Common Eider | | | | | | | |
| | King Eider | | | | | | | |
| | Spectacled Eider | | | | | | | |
| | Steller's Eider | | | | | | | |
| | Unknown Ducks | 50 | | | 13 | 13 | 25 | |
| **Loons** | Common Loon | | | | | | | |
| | Pacific (Arctic) Loon | | | | | | | |
| | Red-throated Loon | | | | | | | |
| | Yellow-billed Loon | | | | | | | |
| **Seabirds** | Common Murre | | | | | | | |
| | Thick-billed Murre | | | | | | | |
| | Black Guillemot | | | | | | | |
| | Sabine's Gull | | | | | | | |
| | Mew Gull | | | | | | | |
| | Glaucous Gull | | | | | | | |
| | Arctic Tern | | | | | | | |
| | Auklets | | | | | | | |
| | Other Seabirds | | | | | | | |
| **Shorebirds** | Plover | | | | | | | |
| | Common Snipe | | | | | | | |
| **Game Birds** | Willow Ptarmigan | 997 | | 992 | 5 | | | |
| | Rock Ptarmigan | | | | | | | |
| | Spruce Grouse | | | | | | | |
| **Snowy Owl** | | | | | | | | |
| **Sandhill Crane** | | 3 | | | 3 | | | |
| **Tundra Swan** | | | | | | | | |
| **TOTAL** | | **3,720** | **63** | **992** | **1,437** | **325** | **946** | **20** |

[1] Based on a random sample of 60 of 151 households, expanded to all households. Data were collected by a local researcher on contract with Maniilaq Association, through cooperative agreements between ADFG, Division of Subsistence, Maniilaq Association, and U.S. Fish and Wildlife Service. Research was approved by resolution of the Selawik IRA Council. Project funded by USFWS.

[2] Winter=Nov, Dec, Jan, Feb; Spring=Mar, Apr, May; Summer=Jun, Jul; Fall=Aug, Sep, Oct.

SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1998.

# SELAWIK
## Bird Harvest Patterns
## November 1997 - October 1998

Fig. 1 **Selawik Bird Harvests, November 1997 - October 1998, by Bird Type**

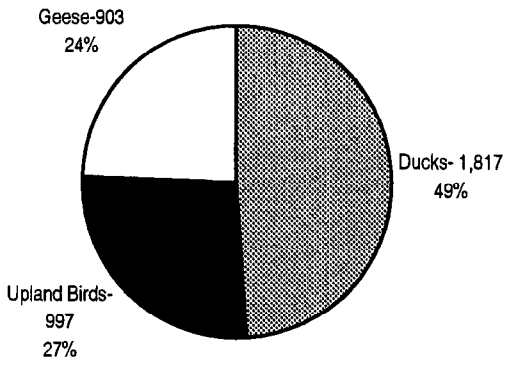



Fig. 2 **Selawik Egg Harvests, November 1997 - October 1998, by Bird Type**

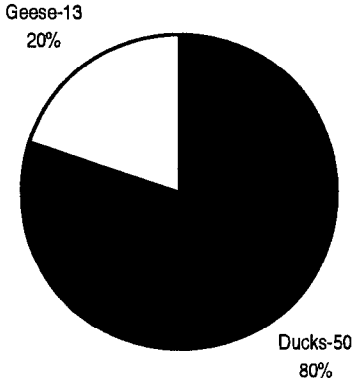



Fig. 3 **Selawik Bird Harvests, November 1997 - October 1998, by Season**

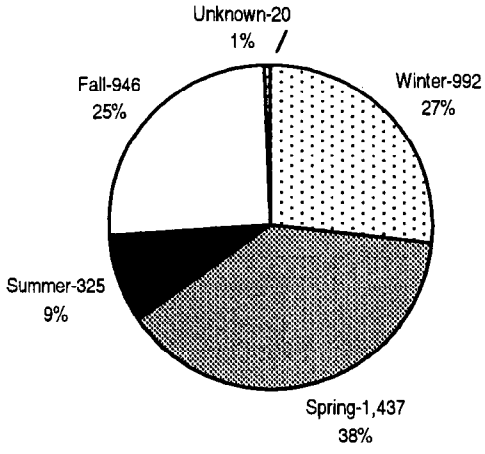
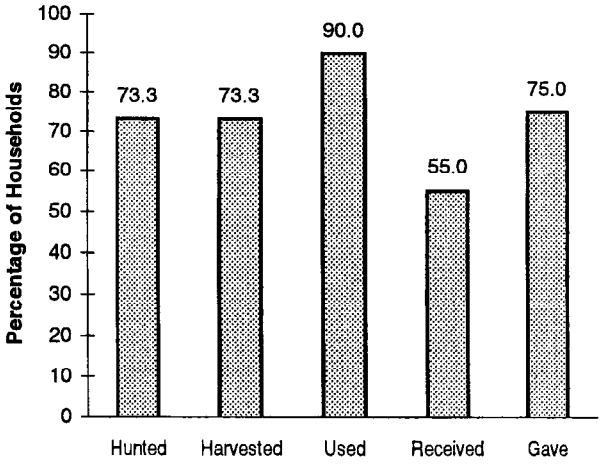



Fig. 4 **Percentage of Selawik Households that Hunted, Harvested, Used, Received, or Gave Birds, 1997-98**




SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1998.

# Migratory Bird Key Respondent Notes, 1994
# Selawik
## Researcher: Dave Andersen

SELAWIK, HUNTING METHODS, GEESE-GENERAL, PREPARATION, PRESERVATION, FEATHERS, EGGS

"I'm not much of a bird hunter these days--not like the old days." According to the respondent, local people don't hunt birds now like they use to back in the 1930s, 40s and 50s. Back then, "spring camp" was a tradition, the whole village left and went out camping to get muskrats and birds. He said that there were no caribou or moose around Selawik back then. Selawik hunters use to have to travel to the Noatak area to get caribou during the winter. Caribou did not come right around Selawik like they do now. Geese were a main food item in spring camp and muskrat skins were worth "good money." To hunt birds they would make blinds and shoot ducks and geese until their sleds were full. Spring camping was usually done in late April and May while there was still snow to travel on. People also took eggs more back then. Now people don't bother with eggs. Spring camps started to slowly decline in the 60s with increased wage employment, school requirements for children, the availability of electricity for storing food, and declines in fur prices. "Welfare and child support have made our young people lazy....hardly anyone goes out to spring camp now." In the 1940s, birds represented the only fresh meat until the ice broke up and fishing could begin. Birds were eaten fresh (boiled or roasted) with seal oil. Harvested birds would be kept cool by placing them in snow banks. If birds needed to be preserved they could be cut up and dried like caribou meat. Some people back then saved the goose down and feathers for making blankets and pillows.
CODE[303-56-112894

SELAWIK, WHITE-FRONTED GEESE, BRANT, CANADA GEESE, SNOW GEESE, EMPEROR GEESE, MOLTING

Canada Geese and White-fronts (called speckle-bellies or speckle-birds) are the most common geese in the Selawik area. They occur in about equal numbers and arrive about the same time. They are nesting in the Selawik area. These geese arrive in small flocks or pairs but "bunch up" on the big lakes in July when they are molting. During the molt, geese avoid noisy areas where people and boat traffic are present and spend most of their time out in the middle of big lakes where they are safe. Black brant fly over the Selawik area in big flocks in the spring but don't stop locally. "No one hunts brants around here." There are no emperor geese found in the Selawik area either.....I hear they are mostly down around the Bethel area". In the fall the geese go south in big flocks. Canadas feed on berries in the fall. He has seen thousands of Canadas eating blueberries on the tundra. White-fronted geese leave in late August while Canada geese wait until the lakes are just beginning to freeze in September before they leave. "We get a couple flocks of snow geese here in the spring but they are around for only a day or two and then they are gone....I think they go to Siberia." Another Selawik resident identified Wrangell Island as a major nesting area for snow geese and said his grandfather lived there for a time years ago and reported seeing snow geese nesting so thick and so close together that from a distance they looked like snow on the ground.
CODE[303-56-112894

SELAWIK, GEESE-GENERAL, DISEASE, POLLUTION, WATERFOWL-GENERAL
"I don't hunt birds in the spring much anymore since I found out about all that disease they carry up with them from the lower-48". The respondent explained that he has heard about pollution and disease problems with some birds and is now reluctant to eat birds that have just spent the winter in "contaminated" areas of the lower-48. "At least in fall time you can shoot birds that have been born and raised around here and are not contaminated". He did not elaborate on specific diseases and did not indicate that he himself had seen sick birds but that he has read about such problems and that this had made him wary of the problem.
CODE[303-56-112894

SELAWIK, WIGEON, TEAL, PINTAILS, MERGANSERS, SCAUP, MALLARDS, OLDSQUAW, SCOTERS, EIDERS, GOLDENEYE
Many duck species are present and nest in the Selawik vicinity.(looking at the bird chart) "We see lots of widgeon, pintail, teal, "black ducks"(scoters), mallards, oldsquaw, mergansers, and scaup. Goldeneyes can be found farther up the [Selawik] river closer to the mountains. We hardly ever see eiders here, they are a coastal bird and stay right along the shore. I shot a common eider once a long time ago and didn't even know what it was. I took it to the preacher here to show him and he told me what it was." I asked him if, among the ducks there was one species that most people tried to hunt...."There is not really a favorite duck here....hunters just go out and get what they can get to eat."
CODE[303-56-112894

SELAWIK, SANDHILL CRANES, NESTING
Many cranes nest around Selawik. These are "tundra birds". There is some hunting of them but not much because "they are scavengers....people don't like to eat things that eat mice and dead animals." According to the respondent cranes will eat just about anything: worms, berries, insects, mice, and carrion. He has seen "thousands of cranes" go through the Nome area in the fall. He knows that large numbers go to Siberia but was certain that the cranes seen around Selawik are "local nesters" that are in the area all summer long.
CODE[303-56-112894

SELAWIK, SWANS, MIGRATION
Nesting pairs of swans are a common sight in the Selawik area. They congregate in large flocks to fly south in the fall. They leave the Selawik area in the very late fall and are known for their ability to fly at night in complete darkness. "When we hear those flocks go over at night we know freeze-up is just around the bend." There is not much hunting of them locally.
CODE[303-56-112894

SELAWIK, PTARMIGAN, GROUSE
On ptarmigan: "I believe their numbers go up and down over the years and there are not many around right now." Willow ptarmigan are the most common local species. Rock ptarmigan are found up in the mountains and hills. Grouse are only found in tree areas and there are no trees in the immediate Selawik vicinity.
CODE[303-56-112894

SELAWIK, SNOWY OWLS
Respondent called them "white owls". They are around but he has not heard of anyone eating one in recent times.
CODE[303-56-112894

SELAWIK, HUNTING METHODS, GEESE-GENERAL
Hunting methods for geese: In the spring some people in Selawik use decoys for geese. A few people buy decoys but they are expensive so many people make them. Crude decoys are made out of mud with a willow stick for a neck and head. These mud decoys are "scraped" together out on a sand or mud bar near open water. When birds are shot they are set out on the mud with their heads propped up as additional decoys..."these work real well." Spring birds in small flocks or pairs are easy to call-in to decoys. They are looking for other groups of geese to join and they decoy real well. Blinds are made out of willows to hide waiting hunters. Pass shooting is another common hunting technique. Picking the right spot is critical if you are pass shooting. Low areas between to big open lakes is a good spot. The best situation is a low saddle between 2 small hills or snow drifts....but it has to be located near a mud bar or open water on a lake or slough. Fall hunting is harder because geese are in big flocks and don't decoy well. The geese are also very hard to get close to. According to the respondent, the only way to hunt them in the fall is to know where they are going to bed-down for the night and get them at dusk as they come in from feeding on berries. Spring is a better time to hunt them.
CODE[303-56-112894

SELAWIK, MOLTING, GEESE-GENERAL
Geese molt for a period of about 2 weeks in July. During the molt they know they are vulnerable so they congregate in huge flocks on large lakes. They stay together in large groups out in the middle of lakes for safety. Different species of geese all molt at about the same time but they tend to stay in species-segregated groups. In general, they don't mix but there are sometimes a few Canada geese mixed in with white-fronted geese or vice versa.
CODE[303-56-112894

SELAWIK, GEESE-GENERAL, POPULATION LEVELS, FEATHERS, PREPARATION, SWANS, PTARMIGAN, MUSKRAT, BEAVER, MOOSE
Miscellaneous comments on birds and bird hunting in the Selawik area. There seems to be fewer geese around now than in the past (all species) "I wonder where did they go? There use to be so many that they kept us awake at night when we were in spring camp." For as long as she can remember geese were taken with shotguns by hunters in the spring. Spring camping and hunting has been greatly reduced mainly because people don't go for muskrat in the spring any more. "We traveled up to spring camp by dog team, way up the river. We use to sell muskrat and make muskrat parkas. There were no beaver or moose here in the old days. I think there was a big fire years ago that chased those animals this way." "Geese are real clever during the molt." Respondent recalled that the first outboard motor came to Selawik about 1934. It was a 5HP Evenrude. "Gee it sure seemed fast on that boat.....and no more rowing!" "We still see lots of swans around here in the fall." Geese are prepared by baking them or boiling them. Boiled birds are usually eaten with seal oil. Besides the meat, heart, lungs, gizzard, and even the feet are cooked up and eaten. In the past, feathers from

any bird taken in the spring were usually saved for use in mittens, blankets, and pillows. Ptarmigan feathers were known to be especially absorbent and in the old days were used to wipe things up like we use paper towels today.
CODE[303-122-113094

SELAWIK, CANADA GEESE, WHITE-FRONTED GEESE, MIGRATION, PREPARATION, PRESERVATION, MOLTING, SNOW GEESE, HUNTING METHODS, FEEDING, EMPEROR GEESE, FEATHERS
Around Selawik, Canada geese arrive first followed by speckle-bellies. These geese arrive in small flocks then they pair-up and breed. Breeding and egg laying is followed by the molt. Geese molt "up-river" where they form big flocks on large lakes. Fall flocks of geese are much larger than spring flocks. In the fall, geese fatten-up by eating blueberries. The berry pickers say that the birds sometimes clean out good berry patches before they can get to them. Fall flocks of geese sometimes fly at night and fall birds are known for having "extra good hearing." Snow geese are occasionally seen but they were much more common around Selawik several decades ago. Snow geese do not nest in the Selawik area but Canadas and whitefronts do. Emperor geese don't occur in the Selawik area. The respondent also mentioned seeing flocks of smaller "duck-sized" Canadian geese in the Selawik area. "They arrive here about the same time as the big ones but from the west.....a different direction than the bigger ones come from." There is still some use of goose down today for pillows and jackets but most people don't bother. Catching geese during the molt was more common years ago than now but a few are still taken during the summer. The traditional method of taking geese during the molt was to locate flightless flocks in a lake, herd them to shallow water or shore using kayaks. Hunters then surrounded the birds and killed them by ringing their necks or biting their heads to quickly crush their skulls. Today, molting geese are sometimes shot but most people leave them along during this time of year. Traditional preservations methods included ice-cellars but mostly birds were eaten fresh. Today, harvested geese are boiled up and eaten with seal oil or mixed with macaroni or rice to make a soup. Canada and white fronted geese can be kept as pets. "You get them when they are still yellow chicks and raise them up during the summer as pets. We did this for our granddaughter. It was fun for her to have them around but you can't keep them from flying south in the fall. The ones we raised-up flew away in the fall and when they came back the next spring they remembered us. They flew real low over us and circled our house the next spring but then went on to be with the rest of their group."
CODE[303-15-112994

SELAWIK, PINTAILS, WIDGEON, MALLARDS, SHOVELERS, GREATER SCAUP, OLDSQUAWS, TEAL, SCOTERS, MOLTING
Flipping through the bird chart, the respondent identified ducks that nest in the Selawik area and are hunted: "Lots of pintails around here." He also said the widgeons, teal, mallards, shovelers (called "spoon ducks"), greater scaup, and oldsquaws are common. Black Scoters (called "black ducks") are more common than surf scoters. There are not many mergansers in the Selawik area. Scaup were described as "hard to pluck." Greater scaup molt in large numbers in a lake right near Selawik. Ducks prefer to molt in areas where it is quiet i.e. no boat noise. Oldsquaw and greater scaup molt at the same time and use the bigger lakes. Other ducks prefer to molt in smaller lakes.
CODE[303-15-112994

SELAWIK, LOONS, FEATHERS
"We get common loons and red-throated loons around here.....maybe the other kinds too. Not much hunting of them. It is hard to pluck out their feathers.....their skin is real tough. That's why we make tool bag out of them."
CODE[303-15-112994

SELAWIK, SEAGULL EGGS, MEW GULL, GLAUCOUS GULL
"Not many people gather the gull eggs around here. These are real bad birds, they make holes in our fish [fish caught in nets]. They are real pests." He identified mew gulls and glaucous gulls as the species most common in the Selawik area.
CODE[303-15-112994

SELAWIK, COMMON SNIPE
"We have that kind [common snipe] around here but I only see one or two white guys out hunting them. We don't eat that bird. I think that one is real small."
CODE[303-15-112994

SELAWIK, GROUSE, PTARMIGAN
Both rock and willow ptarmigan are found in the Selawik vicinity. Willow ptarmigan are more common. "Ptarmigan follow the caribou around. They eat in places where the caribou have kicked through the snow." Ptarmigan were described as being good to eat all year round. Snares and nets were traditional methods of harvesting ptarmigan. Grouse are found in locations where there are spruce trees. "Up the Fish River they come around when they smell smoke from our campfire and they hang around real close to camp." Spruce grouse were identified as the most common grouse species seen.
CODE[303-15-112994

SELAWIK, SNOWY OWLS
There was more hunting of snowy owls in the past but some people still take them for camp food when they are out camping and running low on other things to eat.
CODE[303-15-112994

SELAWIK, CRANES, SWANS, FEEDING
Sandhill cranes are numerous in the Selawik area and nest locally. "Cranes will eat anything. They are scavengers. You can raise them up as pets too, but they can be mean.....always biting you." Swans are common here. They are known for being the last ones to leave the area in the fall. The respondent reported finding a wild swan one year caught in an almost-frozen lake. It was apparently born late and was not ready to fly yet. They took it home and warmed it up and sent it to USFWS in Kotzebue, who sent it to Fairbanks. This was several years ago. They have always wondered what eventually happened to it.
CODE[303-15-112994

SELAWIK, CANADA GEESE, WHITE-FRONTED GEESE, MALLARDS, WIDGEON, PINTAILS
The most commonly hunted birds in the Selawik area are Canada geese, white-fronted geese, mallards, widgeon, and pintails.
CODE[303-00-120194

SELAWIK. SCOTERS
Scoters are skinny in the spring but fat in the fall. They are called black ducks. They nest locally. There are several species . Black scoters and white-winged scoters were identified as the most common.
CODE[303-00-120194

SELAWIK. COMMON SNIPE
Snipe are seen in the area but no one hunts them.
CODE[303-00-120194

SELAWIK. SANDHILL CRANES, CRANE EGGS
Cranes are hunted when they first arrive in the spring but after a couple weeks they don't taste good because they scavenge at the city dump. "Sometimes old people will ask us to go out and get one for them in the spring." Crane eggs are eaten as camp food when hunters are out camping in the spring. "Those cranes will lay their eggs in any kind of weather--they don't care how cold it is." Usually there are 2 eggs per nest. Only one egg is taken from each nest. Eggs are tested by "floating" them in water. Good eggs sink, eggs with developed chicks in them float and are put back in the nest. One egg makes a meal for one person. The eggs are fist-sized and are laid in late May.
CODE[303-00-120194

SELAWIK. GULL EGGS, OTHER EGGS
Gull and loon eggs are sometimes used as camp food. People apparently don't gather eggs much any more to bring home but they are used more often as quick meals when out camping. "Gull and loon eggs are out on the little grass islands in the lakes. I've seen those loons sink their own eggs when you come up on the nest. They jump off the nest and roll their eggs into the deep water until you leave. Then they dive down and bring them back up. They can pick those eggs up in their beak."
CODE[303-00-120194

SELAWIK. GREEN-WINGED TEAL
"These ones here are really tiny ducks. We joke around and call them cup-o-soup ducks because that's about all you can get out of them is a cup of soup."
CODE[303-00-120194

SELAWIK. SNOW GEESE
"There is a stopping place for these [snow] geese up in the [Purcell] mountains way up the Selawik River. It is warmer in the mountains in springtime than it is here....all the water opens up there first...there is a big area of open water way up there where these white geese stop and rest-up. I've seen them up there."
CODE[303-00-120194

SELAWIK. BLACK BRANT
"There are just a few of these around sometimes. We hardly ever see them here."
CODE[303-00-120194

SELAWIK, BRANT
"We see them fly over us in a "v" shape with one bird always in the middle. They don't land here."
CODE[303-98-120194

SELAWIK. SNOW GEESE
"Use to see lots of those long time ago. Not many now."
CODE[303-98-120194

SELAWIK. LOONS
"Oh, their calling is something a sure like to hear." Their skin is tough and can be used to make bags to carry rifle shells.
CODE[303-98-120194

SELAWIK. SNOWY OWL
Respondent called it "white-owl'. "Its good camp food if you have nothing to eat. Good and fat, makes good soup. I boil it up for long long time before you eat it."
CODE[303-98-120194

SELAWIK. SHOVELERS:
Respondent called it "spoon duck" which is apparently the translation of the Native name. "that one is always fat.....they sure never stop eating, even when you are getting close to it, it doesn't bother to stop eating."
CODE[303-98-120194

SELAWIK, GEESE-GENERAL, MIGRATION, CANADA GEESE, WHITE-FRONTED GEESE, BLACK BRANT, SNOW GEESE, CACKLING CANADA GEESE
"The geese we get here are these lesser Canadians (pointing to the bird chart) and these what we call speckle-bellies (white-fronted)." He also pointed to the cackling Canada goose and said that he has seen those "small kind" around Kotzebue in the spring. He thinks they nest at Cape Espenberg. [He may be mistaken about them being cacklers.] Lesser Canadians and white-fronts nest in the Selawik area. Snow geese use to nest in Selawik Lake with Canada geese. He saw them molting together in huge flocks about 25 years ago. For the last 15-20 years there have not been many snow geese around. He saw some snow geese just this last spring, however, and thinks maybe they are "coming back." They use to see more black brant in the past too but they always just fly by--no nesting here. Personally he likes to eat white-fronted geese the best--he just thinks they taste better. Geese are fattest in the fall because they always fatten up on berries. They are hard to hunt in the fall though because they get scared easy by the sound of outboard motors. Cranes and geese arrive early and at about the same time.... "They are about the first ones up here in late April or early May."
CODE[303-128-112994

SELAWIK, DUCKS-GENERAL, MIGRATION, TEAL, WIDGEON, PINTAIL, MALLARDS, SHOVELERS, SCAUP, OLDSQUAW, MERGANSERS, SCOTERS
There are basically two major arrivals of ducks in the Selawik area. There is a group of ducks that arrive right after, or sometimes mixed in with the geese in early May. These early arrivals include teal, widgeon, mallards, pintails, and northern shoveler. Of all these, pintails are probably the most numerous and arrive in the biggest flocks. The

others listed arrive in small groups and pairs. A second wave of ducks arrives in mid-May or when there is more open water. The respondent called these the "big-water ducks." These include scaup, oldsquaw, scoters and mergansers. He noted that the Eskimo name for scoter is translated as "devil bird" because they are all black.
CODE[303-128-112994

SELAWIK. CANVASBACKS
This is a duck he sees nearer the mountains up the Selawik or Fish river.
CODE[303-128-112994

SELAWIK. EIDER
An eider will "accidentally "fly by once in a while. He thinks they are found more on the coast.
CODE[303-128-112994

SELAWIK, CRANES, MIGRATION, NESTING, POPULATION LEVELS
Cranes are increasing in the Selawik area according to respondent. "They nest everywhere and they eat everything. "Some ducks and geese will go back south for a few days if the spring weather turns real cold and icy.....those cranes never do that--they stay right around no matter what the weather. They stand there in the snow and wind shivering on one leg and take it."
CODE[303-128-112994

SELAWIK, SWANS, POPULATION LEVELS, MIGRATION
Swans appear to be increasing in the Selawik area. Respondent says he sees nesting pairs of them everywhere now. In September swans congregate in a "water grass" area just east of Kotzebue before going south. "We use swans and geese around our camp to warn us if something is coming.....they are our guards. They always call out when they see trouble or hear something. I sure like to hear them in camp at night."
CODE[303-128-112994

SELAWIK, CUSTOMARY RULE
"We have a tradition in the spring to not bother the birds after they are nesting.....even long time ago, once they nest-up we switch to ptarmigan and muskrats and leave the ducks and geese alone."
CODE[303-128-112994

SELAWIK, EGGS, DEERING, BUCKLAND, MURRES
We use store eggs now. Deering and Buckland people go out and get those big blue eggs from Chamisso Island."
CODE[303-128-112994

SELAWIK, SNOWY OWLS
"These snow owls were hunted as camp food in the past but not much any more."
CODE[303-128-112994

SELAWIK, LOONS, FEATHERS, POPULATION LEVELS
All 4 species of loons were identified as occurring in the Selawik area. According to respondent there are less loons around ever since the Valdez oil spill...."very few around now, not like before the spill." Common loons were identified as the most abundant

species. Loons are sometimes hunted for their meat and skins. "Their meat makes good pot roast and their skins (feathers left on) are saved for making bags." Loon skin storage bags are good for keeping foods from freezing in cold weather and are used by some as a sort of natural thermos bag for keeping sandwiches or meat from freezing while on winter trips. "They keep meat and bread fresh and soft.....even at 50 below." Respondent said that loons do not molt, their feathers never change and they can be taken for this purpose (making skin bags) at any time during the spring, summer, or fall. They can be found around most lakes or along the river.
CODE[303-128-112994

# Migratory Bird Key Respondent Notes, 1998
## Selawik

SELAWIK. WHITE-FRONTED GEESE. CANADA GEESE. SANDHILL CRANE. MIGRATION. SEASONALITY. WEATHER.
White-fronted and Canada geese come first in the spring. There are also lots of cranes that come around. Birds show up in the last part of April when it is an early spring. When it is a late spring, they come around May. There was too much west wind last spring and the birds were late. It has been kinda poor for two years. The west wind spoils us. It is too cold for the birds.
CODE[303-35-112398

SELAWIK. BRANT.
We don't really see brants. They stay along the ocean by Point Hope, Kivalina, Nome.
CODE[303-35-112398

SELAWIK. SNOW GEESE.
We see white [snow] geese sometimes. They are mostly coming by the ocean, following the saltwater.
CODE[303-35-112398

SELAWIK. GEESE. SEASONALITY. HUNTING CONDITIONS. WEATHER.
When it is melting and raining late in the spring, we can't go upriver along the trail. There is too much water and a rough trail. There are lots of geese up there, but we can't always get to them.
CODE[303-35-112398

SELAWIK. DUCKS. PINTAIL. WIGEON. SHOVELER. SCAUP. MERGANSER. BUFFLEHEAD.
We have lots of ducks, especially pintails, wigeons, and shovelers. We also have scaups, mergansers, buffleheads. They are all good to eat. From the beginning, when I start hunting as a little boy, I like to eat them all.
CODE[303-35-112398

SELAWIK. TUNDRA SWAN. NESTING. POPULATION LEVELS.
We have lots of swans. They nest on big lakes, Selawik Lake. There are lots on Selawik Lake and in the Noorvik area. There are more swans now than when I was growing up.
CODE[303-35-112398

SELAWIK. EIDER.
Eiders stay along the ocean. Sometimes they make a mistake and we see them once in awhile around here.
CODE[303-35-112398

SELAWIK. SURF SCOTER. NESTING.
We have lots of surf scoters. They come around for nesting.
CODE[303-35-112398

SELAWIK. WHITE-FRONTED GEESE. SEASONALITY. MOLTING. CANADA GEESE. PINTAIL. MIGRATION.
Lots of white-fronts come in spring. They stay through July and take off their wings [molt]. They leave the last part of August right after they eat blueberries. They leave too early. Blue [Canada] geese always stay around until freeze-up. Pintails stay around a long time, even after freeze-up if there's open water.
CODE[303-35-112398

SELAWIK. HUNTING. DISEASE. FOOD PREPARATION. DUCKS.
I started hunting when I was eight or nine years old. My dad showed me how to hunt. I always love to hunt. I hunted so much in the 1930s and ate so much ducks, moose, and caribou that I got cancer. That's what the doctors thought. I still eat it, but you have to boil it good.
CODE[303-35-112398

SELAWIK. GEESE. DUCKS. MOLTING. HUNTING.
We got birds when they can't fly. When they can't fly, they are hard to find. They keep hiding. They stay in shallow water where we can't get them with a motor.
CODE[303-35-112398

SELAWIK. ARCTIC LOON. COMMON LOON. FOOD PREPARATION. NON-FOOD PRODUCTS. TUNDRA SWAN. SKINS.
We have two kinds of loons. These kinds—arctic loon and common loon. The biggest loon, the really heavy one, stays on the ocean side. Once in awhile they come around here. We used to catch loons. They are really good, just like eating seal. You can't make soup with them. You have to cook them in the oven, like a seal. People used to make shell bags from the skin, even tool bag. The skins are good for moccasins, too—real pretty. People used to turn loon skins inside out, dry it some way, then put milk in it for babies. They also used to skin swans, put milk in it to feed babies when traveling. It can't freeze up right away.
CODE[303-35-112398

SELAWIK. DUCKS. GEESE. ABNORMALITIES. WEATHER.
Sometimes birds get poor. One time they were dying upriver in 1953, freezing to death in April. One time we found three or four just dropped dead out of the sky like that. The Huslia side found lots.
CODE[303-35-112398

SELAWIK. POPULATION LEVELS. PTARMIGAN. CARIBOU. ECOLOGY. DUCKS.
These games [wildlife] always go around lots in Alaska. Ptarmigan follow caribou, come north. Caribou dig out moss and berries. Ptarmigan eat blueberries. When there is heavy snow around here, they eat willow leaves. They come and go. They stay two or

three years, sometimes they go someplace else. But ducks always keep coming because there are so many lakes around here. Sometimes they get not too many.
CODE[303-35-112398

SELAWIK. SPRUCE GROUSE.
When we are out, we have to build fires sometimes. Those brown ptarmigan [spruce grouse] always come around. They love the smell of smoke. They are hard to see when they come around. You have to go around and see it, right there.
CODE[303-35-112398

SELAWIK. ROCK PTARMIGAN. HABITAT.
Rock ptarmigan stay in the mountains. They are smaller than the other ptarmigan and have black eye. They don't come around Selawik like the other ptarmigan.
CODE[303-35-112398

SELAWIK. SNOWY OWL. ECOLOGY. SEASONALITY. PTARMIGAN. RABBITS. PREY. DUCKS.
Snowy owls don't leave in the wintertime. We see them any time of year. Whenever we travel up that way, we see them. Sometimes they get real fat. They are good eating right then. Ptarmigan and rabbits are up that way. That's why snowy owls are there. They even eat small ducks when they are growing up in summer. They look for them to eat.
CODE[303-35-112398

SELAWIK. SANDHILL CRANE. TUNDRA SWAN. SEASONALITY. WEATHER.
Lots of cranes come around. Swans and cranes always stay until just before freeze-up. They leave at the same time. They really know the weather. Big flocks of them heading south.
CODE[303-35-112398

SELAWIK. SANDHILL CRANE. HABITAT. HUNTING. NESTING. FOOD PREPARATION. ECOLOGY.
Cranes stay around all summer in valleys where there are lakes and it is wet. Sometimes they go on higher ground to eat blueberries. They look for long worms in the wet tundra. That's what they like to eat. When they first come around, I used to get two or three. They were fat and my wife liked them. She cooked them like a turkey. Real good taste. When cranes come around in late May, they always are skinny. In late August or September, they always start getting fat again. Cranes are real smart and it is hard to get close to them. They are dangerous when they are nesting and will fight to protect their nests. They are hard to get close to when they are raising their young ones.
CODE[303-35-112398

SELAWIK. LOON. EGGS. NESTING. SCOTER. BEHAVIOR.
Loons are really dangerous when nesting. They can punch or poke a hole in the bottom of a canoe or kayak. They sink their eggs in the water when something threatening goes by. They really hide them. Then they get them back when the threat is gone. Even black ducks [scoters] do that.

CODE[303-35-112398

SELAWIK. SNIPE.
We have lots of snipes. Myself, I don't play around with them. They are too small to eat. People don't really catch them.
CODE[303-35-112398

SELAWIK. TERN. GULL.
Terns and seagulls come around. [Respondent called terns "pintails"]. There is still a seagull around right now. I feed it, put fish out for it.
CODE[303-35-112398

SELAWIK. EGGS. CUSTOMARY RULES. RAVEN. DUCKS. GEESE. FOOD PREPARATION.
We always eat eggs when they first start and are fresh. We put them in water. If they sink down, they are good to eat. If they float up, it has a baby and we put it back in the nest. My mom and dad told me not to play around with those eggs unless I'm starving. We get eggs from all kinds of birds except ravens. All of them have good taste. You have to boil them. I love to eat them fresh myself. They spoil easily in the sun. We don't play around with ravens. They eat anything—dogs, mouse, old fish.
CODE[303-35-112398

SELAWIK. TUNDRA SWAN. HUNTING. ECOLOGY. FOOD PREPARATION.
Swans are hard to kill because they are strong. They look like they are going slow but really they are going fast. Your shot will miss them. There is a $500 fine for them. People are afraid of getting caught by Fish and Game. When I get really hungry, I get them. I don't shoot too many. When you catch a male or female, the other one doesn't leave. They stay right there for a long time. We boil them good, then roast them. Put them to the oven later on with barbecue sauce. Some old ones are hard to chew. You'll notice that. Some of the old ones are hard to chew.
CODE[303-35-112398

SELAWIK. HUNTING. CUSTOMARY RULES. DUCKS. GEESE. SEASONALITY. NESTING.
Mostly I hunt in the spring before the ice breaks up. Some birds are around in June and July but they get skinny when they have their eggs. I leave them alone until late August or September when they begin to get fat again. Some young guys keep hunting them. But they always be really skinny when they have young ones, when the mother is teaching the young ones. When they start flying, they start getting fat. Mostly in September.
CODE[303-35-112398

SELAWIK. TUNDRA SWAN. GEESE. MIGRATION.
When swans and geese are migrating, it's noisy. Too noisy, just like dogs. You can't even sleep at night. They like to reach Alaska, that's why.
CODE[303-35-112398

SELAWIK. GEESE. MIGRATION. WEATHER.
When the birds come in spring, they follow the mountains. They like to eat blueberries and different kinds of berries. When there is too much snow, they stay and feed themselves in the mountains. The old ones play follow-the-leader. They learn where to go.
CODE[303-35-112398

SELAWIK. HUNTING METHODS. TECHNOLOGY. NETS. WIGEON. SHOVELER. MALLARD. PINTAIL.
Long ago, when there weren't enough shotguns and .22s, people used to set nets to catch ducks. Wigeons, shovelers, mallards, pintails fly low. We would set a net, about fifty feet long, kind of small mesh. One time I helped. We chased the birds and some flew into the net. Their necks got stuck and their feet tangled up. You just twist their neck and you got it. Some bump the net, fall on the ground. You grab them and twist them.
CODE[303-35-112398

SELAWIK. OLDSQUAW. PTARMIGAN. ORAL TRADITIONS.
Ahaaliqs [oldsquaws] are good to eat. Ahaaliqs and ptarmigan were partners. That's a true story. Ptarmigan make that sound when they land. Oldsquaws play around in the water like ptarmigan used to. They switched around somehow and the oldsquaw's voice gets better.
CODE[303-35-112398

SELAWIK. PTARMIGAN. SANDHILL CRANE. BONE. TOOL. NON-FOOD PRODUCTS.
Ptarmigan and crane have the same muscle in their leg. Even turkeys. Some kind of sinew in their leg. A bone in their leg. They were partners before. You let it dry and it gets hard. It's hollow inside and people used to use it for needle. Mostly crane, because ptarmigan was too small.
CODE[303-35-112398

SELAWIK. CACKLING CANADA GEESE. SNOW GEESE.
We don't see really small Canada geese. They must be somewhere else. One time someone in Selawik saw snow geese below the shelter cabin between here and Noorvik. It must be on their migration route to the south.
CODE[303-95-112398

# Bird Harvests in Shungnak, November 1993 through October 1994

**Results of a Cooperative Project by the**
**Division of Subsistence, Alaska Department of Fish and Game, in cooperation with**
**Maniilaq Assoc., the Shungnak IRA Traditional Council, and the U.S. Fish and Wildlife Service**
**April 1995**

## Introduction

Birds are important to families in northwest Alaska. They are an important part of the culture and traditional way of life of Alaska Natives. Birds and bird eggs are eaten for food, and feathers are used in hand-crafted items. This report presents information on bird harvests in Shungnak during November 1993 through October 1994. The information are results from a cooperative project in 1994-95.

## The Project

Several groups worked together on the project to gather information on birds at Shungnak. Members of the Shungnak IRA Council discussed the project informally with Division of Subsistence staff in September 1994, with verbal agreement to the project given to Maniilaq at the end of November. Staff of the City of Shungnak provided important liaison assistance with the members of the Shungnak IRA Council. A survey of households was done by a local researcher hired and supervised by Maniilaq Assoc. The project was designed by the Division of Subsistence, Alaska Department of Fish and Game, who also put the information into tables and into this report. Money for the project was given by the U.S. Fish and Wildlife Service. Preliminary results were reviewed by Maniilaq and the Division of Subsistence, ADF&G.

## How the Information Was Collected

A survey was used to gather information on bird harvests. Surveys were done in 50 of 55 households (96.5 percent) in Shungnak. Also, four bird experts from Shungnak were interviewed about bird ecology and traditional uses of birds. Surveys were done between December 11, 1994 and February 28, 1995 in Shungnak. On the survey, people were asked about bird hunting during the 12-month period, November 1993 through October 1994. To protect confidentiality, no person's name will be used in any reports of the information, unless that person gives permission to do so.

## Findings

During the 12-month period, November 1993 through October 1994, 50 households in Shungnak reported a number of things about their use of birds:

- Almost all households used birds (47 households, or 86.0 percent) (see Fig. 4).
- About two thirds of all households had bird hunters (36 households, or 66.0 percent) (see Fig. 4).
- Sharing of birds was common -- 35 households (64.0 percent) reported giving birds to other households, and 25 households (46.0 percent) reported receiving birds from other households (see Fig. 4).
- At least 20 kinds of birds were harvested -- white-fronted geese, cackling Canada geese, lesser Canada geese, snow geese, northern pintail, American widgeon, mallard, northern shoveler, greater and lesser scaup, canvasback, green-winged teal, oldsquaw, common goldeneye, black, surf, and white-winged scoter, willow ptarmigan, snowy owl, and tundra swan (see Table 1).
- About 2,166 birds were harvested by households in Shungnak during the 12-month period, November 1993-October 1994 (see Table 1).

- The top five birds in numbers harvested during the 12-month period were willow ptarmigan (421 birds), lesser Canada geese (227 birds), northern pintail (226 birds), American widgeon (154 birds) and black scoter (152 birds) (see Table 1).

- Birds were taken in spring (71.6 percent), summer (14.1 percent), and winter (8.4 percent); the season was not known for some birds (5.8 percent) (see Fig. 3).

- The season of harvest was different for types of birds -- for instance, most white-fronted geese, lesser Canada and cackling Canada geese were harvested in spring; most ducks were taken in spring and early summer; and all ptarmigan were taken in winter and early spring (see Table 1).

- The survey may have missed some bird eggs harvested in Shungnak. Additional key respondent and survey work would help provide more complete information on historic and contemporary patterns of egg use.

- The classification of Canada geese harvests into "cackling Canada" or "lesser Canada" by hunters are uncertain because of the close resemblance of the two species and the difficulties distinguishing them with the illustrations in the colored bird guide used in the survey. Additional work documenting harvested birds and bird classification systems would help to clarify this issue.

- The information on bird harvests are shown in detail in Table 1 and Figures 1-4.

- Information from hunting experts about birds and bird hunting in the Shungnak area are attached as an appendix.

**Computerized Data Files**

This information is available as computer files at Maniilaq Association, P.O. Box 256, Kotzebue, Alaska 99752 (907-442-3311) or the Division of Subsistence, Alaska Department of Fish and Game, Box 3-2000, Juneau, Alaska 99802 (907-465-4147). Information requests can be made from either group.

**Acknowledgments**

A thank you is given to all the households and bird hunting experts who graciously volunteered to be surveyed on the project. A special thanks is given to Art Ivanoff of Maniilaq, who supervised data collection; Wynona Jones of Shungnak, who conducted the household surveys; Amy Paige of the Division of Subsistence, ADF&G, who trained surveyors, interviewed expert hunters, and analyzed data; and the Shungnak IRA members and City of Shungnak staff, who gave support to the project.

# Table 1. SHUNGNAK
## Bird Harvests, November 1993-October 1994[1]

| Bird Species | | Total Harvests | | Bird Harvest By Season[2] | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Birds | Eggs | Winter | Spring | Summer | Fall | Unknown |
| **Geese** | White-fronted Geese | 198 | | | 198 | | | |
| | Emperor Geese | | | | | | | |
| | Canada Geese | 306 | | | 300 | 3 | | 1 |
| | Snow Geese | 4 | | | 4 | | | |
| | Brant | | | | | | | |
| **Ducks** | Northern Pintail | 228 | | | 197 | 31 | | |
| | American Wigeon | 154 | | | 106 | 40 | | 9 |
| | Mallard | 113 | | | 70 | 30 | | 13 |
| | Northern Shoveler | 24 | | | 13 | | | 11 |
| | Greater Scaup | 127 | | | 81 | 45 | | |
| | Lesser Scaup | 100 | | | 50 | 7 | | 44 |
| | Canvasback | 42 | | | 36 | 6 | | |
| | Green-winged Teal | 20 | | | 18 | | | 2 |
| | Common Merganser | | | | | | | |
| | Red-breasted Merganser | | | | | | | |
| | Bufflehead | | | | | | | |
| | Harlequin | | | | | | | |
| | Oldsquaw | 151 | | | 91 | 43 | | 17 |
| | Common Goldeneye | 40 | | | 40 | | | |
| | Black Scoter | 152 | | | 78 | 63 | | 11 |
| | Surf Scoter | 76 | | | 28 | 41 | | 7 |
| | White-winged Scoter | 11 | | | 11 | | | |
| | Common Eider | | | | | | | |
| | King Eider | | | | | | | |
| | Spectacled Eider | | | | | | | |
| | Steller's Eider | | | | | | | |
| **Loons** | Common Loon | | | | | | | |
| | Pacific (Arctic) Loon | | | | | | | |
| | Red-throated Loon | | | | | | | |
| | Yellow-billed Loon | | | | | | | |
| **Seabirds** | Common Murre | | | | | | | |
| | Thick-billed Murre | | | | | | | |
| | Black Guillemot | | | | | | | |
| | Sabine's Gull | | | | | | | |
| | Mew Gull | | | | | | | |
| | Glaucous Gull | | | | | | | |
| | Arctic Tern | | | | | | | |
| | Auklets | | | | | | | |
| | Other Seabirds | | | | | | | |
| **Shorebirds** | Plover | | | | | | | |
| | Common Snipe | | | | | | | |
| **Game Birds** | Willow Ptarmigan | 421 | | 182 | 229 | | | 11 |
| | Rock Ptarmigan | | | | | | | |
| | Spruce Grouse | | | | | | | |
| **Snowy Owl** | | 1 | | 1 | | | | |
| **Sandhill Crane** | | | | | | | | |
| **Tundra Swan** | | 6 | | | 6 | | | |
| **TOTAL** | | **2,174** | | **183** | **1,556** | **309** | | **126** |

[1] Based on a census sample of 50 of 55 households, expanded to all households. Data were collected by a local researcher on contract with Maniilaq Association, through a cooperative agreement between ADFG, Division of Subsistence and Maniilaq. Research was approved by resolution of the Shungnak IRA Council. Project funded by USFWS.

[2] Winter=Nov, Dec, Jan, Feb; Spring=Mar, Apr, May; Summer=Jun, Jul; Fall=Aug, Sep, Oct.

SOURCE: Maniilaq Association and Alaska Department of Fish and Game, Division of Subsistence, Household Survey, 1994.

# SHUNGNAK
## Bird Harvest Patterns
## November 1993 - October 1994

Fig. 1

**Shungnak Bird Harvests, November 1993 - October 1994, by Bird Type**

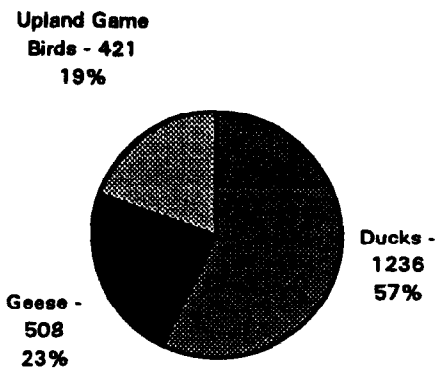



Fig. 2

**Shungnak Egg Harvests, November 1993 - October 1994, by Bird Type**

No egg harvest recorded during the study period by sampled households.

Fig. 3

**Shungnak Bird Harvests, November 1993 - October 1994, by Season**

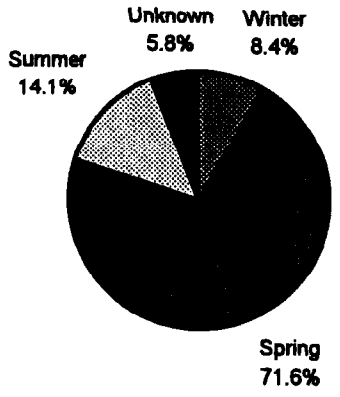
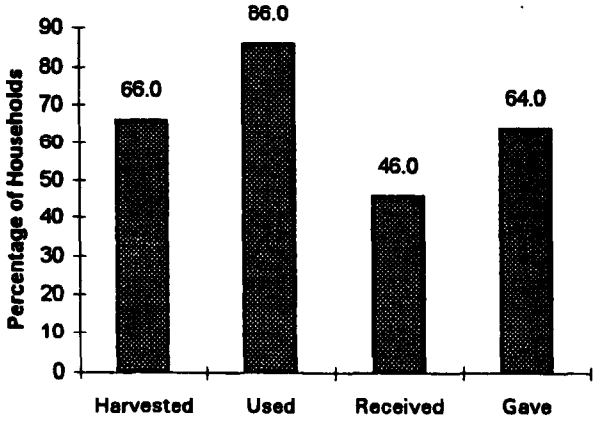



Fig. 4 **Percentage of Shungnak Households that Harvested, Used, Received, or Gave Birds, Nov. 1993 - Oct. 1994**




SOURCE: Alaska Department of Fish and Game, Division of Subsistence, and Maniilak, Household Survey, 1994.

# Migratory Bird Key Respondent Notes, 1994
## Shungnak
### Researcher: Amy Paige

SHUNGNAK. BLACK BRANT. SEASON
Respondent sees flocks of Black Brant flying high toward the west in late May and early June. They do not come down in this area, and people do not get Brant around here.
CODE[312-17-121194

SHUNGNAK. WHITE-FRONTED GEESE. LESSER CANADA GEESE. ABUNDANCE. SEASON
The White-fronted and Lesser Canada geese are the most plentiful geese around Shungnak. They come early, in the first part of May. They nest in lakes around Shungnak. You find them across the lake. They stay through freeze-up - end of September.
CODE[312-17-121194

SHUNGNAK. WHITE-FRONTED GEESE. LESSER CANADA GEESE. SEASON. NESTING BEHAVIOR
White-fronted geese and Lesser Canada geese are fat when they first come. We stop hunting them by the end of May, first part of June when they begin nesting. They are eating grasses when they first come.
CODE[312-17-121194

SHUNGNAK. HUNTING METHODS. CUSTOMARY RULES.
We tell young hunters "Don't shoot if you know you can't hit them. Don't waste shells." A box of 12 gauge shells costs $17.00.
CODE[312-17-121194

SHUNGNAK. MEAL PREPARATION/PRESERVATION.
We boil ducks and geese or roast them. Respondent likes goose fat.
CODE[312-17-121194

SHUNGNAK. NON-FOOD PRODUCTS.
Respondent saves the down for pillows and comforters.
CODE[312-17-121194

SHUNGNAK. MIGRATORY BIRDS. ABUNDANCE. SEASON.
There used to be lots of Lesser Canada geese, as well as White-fronted and Snow geese and lots of swans. There are lots of Pintails, Mallards, Scaups and Oldsquaws. Ducks arrive in May after breakup. You see then in the lakes, probably eating fresh sprouts, plant roots and float up to the surface during breakup. These ducks nest around here. Oldsquaw stay later than other ducks.
CODE[312-36-121184

SHUNGNAK. EMPEROR. BLACK BRANT
We never see Emperor geese or Black Brant around Shungnak. Brant may fly high over head - too high to get.
CODE[312-36-121184

SHUNGNAK. WHITE-FRONTED GEESE. LESSER CANADA GEESE. MOLT
There are lots of White-fronted geese molting in the area between Ambler and Kiana. The Lessers are up around the Hunt River in summer - below Ambler. They are also up the Kobuk River.
CODE[312-36-121184

SHUNGNAK. HUNTING METHODS
We use snow machines mostly around breakup - but you have to be careful because of weak ice. We use boats later, for ducks, when the water opens up in the lakes. Use 12 or 16 gauge shotgun. We teach young hunters gun safety, how to handle guns.
CODE[312-36-121184

SHUNGNAK. HUNTING FOR ELDERS.
Maniilaq has provided gas and ammunition to local youth to hunt for the elders.
CODE[312-36-121184

SHUNGNAK. LOONS. HABITAT. MEAL PREPARATION/PRESERVATION. CUSTOMARY TRADE
The Yellow-billed Loon live in the big lakes around here. We boil loons, or use them half-dried. They used to put them in seal oil in barrels. They were traded for seal pokes, which were used for food storage.
CODE[312-36-121184

SHUNGNAK. MUDSHARK. METHODS
We trade mudshark liver for seal pokes with folks from the coast. To get mudsharks, we build a trap (5' x 4') or a corral in a circle shape, with opening. We currently are getting about 20 overnight. Used to be we'd get over 100. We use split cottonwood as fencing material.
CODE[312-36-121184

SHUNGNAK. SHEEFISH TAGGING.
Believe tagging of Sheefish, currently being done by the Department of Fish and Game, shouldn't be done late in the summer (August-September) when our subsistence sheefishing is done, and when the water is beginning to get colder. The fish don't tolerate the disturbance as well when the water is cold. It should be cone earlier in the summer - like in July.
CODE[312-36-121184

SHUNGNAK. WHITE-FRONTED GEESE. CACKLING CANADA GEESE. LESSER CANADA GEESE. ABUNDANCE. SEASON. SPRING
The most abundance species of geese around Shungnak are the White-fronted, the Cackling and the Lesser Canada geese. We see them in flocks of about 20-40. White-fronted geese are the first to arrive. It depends on the weather. They may arrive as early as the end of April, but maybe later. If the weather gets warm, but then turns cold again, they turn back.
CODE[312-37-121194

SHUNGNAK. WHITE-FRONTED GEESE. CACKLING CANADA GEESE. LESSER CANADA GEESE. HABITAT. NESTING BEHAVIOR. MIGRATION. FALL.
The White-fronted, Cackling Canada and Lesser Canada geese nest up-river, maybe 100 miles up-river. They leave by the end of September.
CODE[312-37-121194

SHUNGNAK. EMPEROR GEESE. MIGRATION. SPRING.
The Emperor geese just fly over, heading north in May - heading north toward Barrow.
CODE[312-37-121194

SHUNGNAK. BLACK BRANT. SNOW GEESE. ABUNDANCE
There are not Black Brant or Snow Geese around Shungnak.
CODE[312-37-121194

SHUNGNAK. EIDER. ABUNDANCE. HABITAT. SEASON. SCOTERS.
The Common Eider is mostly around Elephant Point, down below Buckland. Respondent sees them when he's down there hunting beluga. Also around Kivalina. Respondent is aware that there are lots of Common Eider around by Endicott and Prudhoe Bay. At Elephant Point, about ten years ago saw them the first part of June - on the ice. They were flying through. They overnight on chunks of ice. Saw them in big flocks of 50 or more. The Eider flocks are mixed with scoters - both black and surf scoters.
CODE[312-58-121194

SHUNGNAK. EMPEROR GEESE. ABUNDANCE
Respondent saw them "down the coast". Has seen them fly through - 2-5 maybe, down around Selawik.
CODE[312-58-121194

SHUNGNAK. BRANT. ABUNDANCE. MIGRATION. POPULATION
We see Brant passing through, flying toward the ocean. They fly in big flocks of 200-300. They are like a big black cloud, flying high. They may land for the night. We don't get them.
CODE[312-58-121194

SHUNGNAK. CACKLING AND LESSER CANADA GEESE. ABUNDANCE
You see a few of them around Kobuk, Selawik - not many, last part of May, first part of June.
CODE[312-58-121194

SHUNGNAK. TRADITIONAL PRACTICES.
We get birds for subsistence, not for target practice
CODE[312-58-121194

SHUNGNAK. WHITE-FRONTED GOOSE. LESSER CANADA GOOSE. FEEDING BEHAVIOR
White-fronted and lesser Canada geese lay eggs in the ground; eat grass from under water, mosquitoes; eat little green grass, bugs from lakes, little clams and rocks.
CODE[312-05-010095

SHUNGNAK. EMPEROR GEESE
There are none.
CODE[312-05-010095

SHUNGNAK. CACKLING CANADA GOOSE.
Never seen this goose before
CODE[312-05-010095

SHUNGNAK. NORTHERN PINTAIL, AMERICAN WIGEON, MALLARD
These ducks eat leaves and from the tundra. They lay eggs by the side of lakes, on the tundra. Some lay by the sand bar.
CODE[312-05-010095

SHUNGNAK. MOLTING
Birds molt way up river above the Kobuk. When she was a young girl, she remembers; it was month of July and early August.
CODE[312-05-010095

SHUNGNAK. OLDSQUAW, COMMON LOON
The oldsquaw and common loon eat fish. They lay eggs by the grass and lakes and little babies eat mosquitoes.
CODE[312-05-010095

SHUNGNAK. GULLS. TERNS
Sea gulls and arctic terns lay eggs on sand or in the middle of lakes. They eat fish.
CODE[312-05-010095

SHUNGNAK. COMMON MERGANSER.
The common merganser lays eggs in lakes, but when they hear danger coming they drown the eggs until it's safe, and pull them back up.
CODE[312-05-010095

SHUNGNAK. CRANES
Cranes eat anything, little ducks. Crack the eggs and lay eggs by the lakeside.
CODE[312-05-010095

SHUNGNAK. SWANS
Swans eat berries, grass, rocks. Also lay eggs by the lake.
CODE[312-05-010095