Alaska Department of Fish and Game
Division of Wildlife Conservation

Federal Aid in Wildlife Restoration
Annual Performance Report of
Survey - Inventory Activities
1 July 1993 - 30 June 1994

FURBEARERS

Mary V. Hicks, Editor

Leonard Lee Rue III

Grant W-24-2
Study 7.0
December 1994

STATE OF ALASKA
Tony Knowles, Governor

DEPARTMENT OF FISH AND GAME
Carl L. Rosier, Commissioner

DIVISION OF WILDLIFE CONSERVATION
Wayne L. Regelin, Acting Director

Additional copies of this report and other Division of Wildlife Conservation publications are available from:

Publications Specialist
ADF&G, Wildlife Conservation
P.O. Box 25526
Juneau, AK 99802
(907) 465-4190

Project Title: Southeast Furbearer Population Management

Overview: Principal furbearer species in the Southeast Alaska region include marten, land otter, beaver, and mink. Wolverine are found in low densities and lynx occur cyclically. Because furbearer harvest levels are a function of market prices, weather, habitat conditions, natural fluctuations, and trapping effort rather than species availability, harvests do not reliably indicate population status. However, information from trappers, observations from the field, and harvest data suggest Southeast furbearer populations are stable.

Project Location: Subunit 1A (5,000 mi^2) - Ketchikan area including mainland areas draining into Behm and Portland Canals
Unit 2 (3,900 mi^2) - Prince of Wales Island and adjacent islands south of Sumner Strait and west of Kashevarof Passage and Clarence Strait

Project Objectives and Activities:

1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.

2. Seal beaver, marten, otter, lynx, and wolverine pelts as they are harvested and presented for sealing.

3. Contact reliable observers to obtain general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

Work Accomplished During the Project Segment Period: The following number of furbearers were harvested from Subunit 1A and Unit 2 during this report period:

Species	Subunit 1A	Unit 2
Beaver	24	111
Marten	42	582
Otter	107	100
Wolverine	1	--

We collected information about furbearers through an annual mail-out trapper survey during 1993-94. We also gathered anecdotal information from personal contacts with hunters and trappers.

Progress Meeting Project Objectives:

Based on responses to the trapper survey, beaver, marten, mink, and otters are considered to be at intermediate levels in Subunit 1A. In Unit 2, responses from two trappers indicated beaver and otter populations are considered intermediate while a single trapper indicated the abundance of marten is low. Marten harvest from Subunit 1A was the lowest reported since sealing became required in 1984-85. In Unit 2 the marten harvest ranked fifth during the past ten-year period. All Unit 2 harvests were higher than reported last season. All management activities were completed during this reporting period.

Project Location: Subunit 1B and Unit 3 (6,000 mi^2) - Southeast Mainland from Cape Fanshaw to Lemesurier Point and adjacent islands

Project Objectives:

1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.

2. Seal beaver, marten, otter, lynx, and wolverine pelts as they are harvested and presented for sealing.

3. Contact reliable observers to gather general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

Work Accomplished During the Project Segment Period: During the sealing process, we questioned trappers about their impressions of populations and regulations. Most felt that populations were in good condition, except for some small areas around communities where trapping effort, especially for marten, may have been excessive. No desire for more restrictive regulations were expressed. We surveyed all trappers active in 1993-94 by mail and will compile the data when the questionnaires are returned.

Progress Meeting Project Objectives: The following number of furbearers were harvested from Subunit 1B and Unit 3 during this report period.

Species	Unit 1B	Unit 3
Beaver	3	53
Marten	152	182
Otter	21	82
Wolverine	7	0

Project Location: Subunit 1C (7,600 mi^2) - Southeast mainland and the islands of Lynn Canal and Stephens Passage lying between Cape Fanshaw and the latitude of Eldred Rock, including Sullivan Island and the drainages of Berners Bay.

Project Objectives and Activities:

1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.

2. Seal beaver, marten, otter, lynx, and wolverine pelts as they are harvested and presented for sealing.

3. Contact reliable observers to gather general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

Work Accomplished During the Project Segment Period: We collected fur harvest data through the mandatory sealing process. We used a trapper questionnaire to gain additional information regarding target species abundance, prey abundance, trapping conditions, and trapping patterns.

Progress Meeting Project Objectives: Trappers took 24 beavers, 5 lynx, 44 martens, 13 otters, and 6 wolverines. Subunit 1C furbearer populations seem stable, although lynx harvest is up and marten harvest remains low for the second year. Using trapper questionnaires, we will continue to examine fluctuations in fur harvest in future years.

Project Location: Subunit 1D (2,700 mi^2) - Southeast mainland lying north of the latitude of Eldred Rock, excluding Sullivan Island and the drainages of Berners Bay.

Project Objectives and Activities:

1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.

2. Seal beaver, marten, otter, lynx, and wolverine pelts as they are harvested and presented for sealing.

3. Contact reliable observers to gather general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

Work Accomplished During the Project Segment Period: We collected fur harvest data through the mandatory sealing process. We used a trapper questionnaire to gain additional information regarding target species abundance, prey abundance, trapping conditions, and trapping patterns.

Progress Meeting Project Objectives: Seventeen martens, three otters, nine lynx, and six wolverines were harvested. Furbearer populations within GMU 1D seem stable, although marten may be at low densities and were harvested at low levels for the second year in a row. Beaver have returned to the Chilkat drainage in low numbers.

Project Location: Unit 4 (5,800 mi2) - Admiralty, Baranof, Chichagof, and adjacent islands.

Project Objectives:

1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.

2. Seal beaver, marten, otter, lynx, and wolverine pelts as they are harvested and presented for sealing.

3. Contact reliable observers to gather general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

Work Accomplished During the Project Segment Period: Marten, otter, and beaver were sealed within 30 days of harvest. We examined furs at sealing and determined sex. We also took measurements. We asked trappers on northeastern Chichagof Island their opinions on declining marten harvests.

Progress Meeting Project Objectives: The harvest may not reflect population levels. A total of 494 martens and 149 otters were harvested and sealed. No beavers were sealed. Although marten harvests have declined across the unit, the decline does not seem related to trapping pressure, with the exception of northeastern Chichagof Island where a system of logging roads provides access to most of the habitat. There is no indication trapping has depressed other furbearer populations.

Project Location: Unit 5 (6,200 mi2) - Cape Fairweather to Icy Bay, eastern gulf coast.

Project Objectives and Activities:

1. Regulate seasons and bag limits to maintain viewable and harvestable populations of furbearers.

2. Seal harvested beaver, marten, otter, lynx, and wolverine pelts as they are and presented for sealing.

3. Contact reliable observers to obtain general information about the status and trends of furbearer populations, including the use of an annual trapper survey.

Work Accomplished During the Project Segment Period: Staff sealed furs in Yakutat. Harvest was analyzed from furbearer sealing certificates.

Progress Meeting Project Objectives: Commercial Fisheries Division staff in Yakutat sealed furbearers as they were presented at that ADF&G office. Residents of Yakutat as well as nonlocal outdoorsmen contributed anecdotal information concerning sighting of furbearers. During the trapping year, 2 beavers, 5 lynx, 7 otters, and 73 martens were sealed.

Segment Period Project Costs:

	Personnel	Operating	Total
Planned	$25.2	$2.5	$27.7
Actual	$25.2	$2.5	$27.7
Difference	0	0	0

Submitted by:

W. Bruce Dinneford
Management Coordinator

Project Title: Southcentral Alaska Furbearer Management

Project Location: Unit 6 (10,150 mi^2)
Prince William Sound and north Gulf Coast

Project Objectives: Develop measurable objectives for all furbearer species throughout the region.

Work Accomplished During the Project Segment Period: Appointed sealers and ADF&G staff sealed 103 pelts (44 beavers, 41 otters, and 16 wolverines). Trapper interest was minimal because of low pelt prices. We mailed 45 questionnaires to trappers requesting information on trapping activity and furbearer abundance, and we received 15 responses. Results will be available in fall 1994.

Progress Meeting Objectives: Population objectives have not been established for furbearer species. Progress toward establishing objectives was limited by insufficient funding and a lack of efficient methods to estimate populations.

Project Location: Units 7 and 15 (8,400 mi^2)
Kenai Peninsula

Project Objectives: Develop measurable objectives for all furbearer species by 1995.

Work Accomplished During the Project Segment Period: Appointed sealers and ADF&G staff sealed 305 pelts (33 marten, 173 beavers, 72 land otters, 24 wolverines and 3 Lynx) during the reporting period. Lynx hunting and trapping seasons were closed during 1993-94 because of low numbers of animals. Two lynx were reported trapped as nontarget species and 1 was accidentally killed by U. S. Fish and Wildlife Service during their lynx study. Mink, weasel, muskrat, red fox and coyote are also harvested on the Kenai; however, sealing was not required for these species. Catch reports from trapper questionnaires suggested harvest of these species was comparable to the previous year.

Progress Meeting Objectives: Population objectives have not been established for furbearer species. We administered Lynx and beaver censuses in small study areas and will possibly extend our estimate densities to a subunit level in the future.

The monitoring of harvests from sealing and reports from trappers suggested all furbearers except lynx were found in harvestable numbers and populations were stable. The lynx population declined during the late 1980s and has not increased over large areas to open the season. We recommend no changes in seasons or bag limits.

Project Location: Unit 8 (8,750 mi^2)
Kodiak Archipelago

Project Objectives: Develop measurable objectives for all furbearer species throughout the region.

Work Accomplished During the Project Segment Period: Eighteen trappers submitted pelts for sealing. Eleven trappers harvested otters, and 11 trappers harvested beavers. Sixty-nine otters (37 males, 20 females, 12 undetermined sex) and 68 beavers were sealed. Highest individual catches were 30 beavers and 28 otters. The average catch was 6.3 otters per trapper and 6.2 beavers per trapper. We mailed trapper questionnaires to 28 individuals who had recently trapped in Unit 8. Thirteen (46%) questionnaires were returned.

Progress Meeting Objectives: Furbearer populations seemed high, but we did not assess population trend. A slight decline in trapping effort and harvest occurred in 1993-94. Trapping has little effect on furbearer populations at current levels. With the current low harvest, developing management objectives for furbearers is not a high priority

Project Location: Units 9 and 10 (45,500 mi2)
Alaska Peninsula, Aleutian, and Pribilof Islands

Project Objectives: Develop measurable objectives for all furbearer species throughout the region.

Work Accomplished During the Project Segment Period: During this report period.we did not administer surveys. We sent questionnaires to a select group of trappers, indirectly estimating furbearer population trends and relative abundance. Active trappers returned only 8 questionnaires. It is difficult to make inferences about population status from such a limited sample, but generally trappers reported most species were relatively stable. Snow and weather conditions were not conducive to productive trapping.

We derived furbearer harvest information from furbearer sealing certificates. The preliminary harvest for 1993-94 in Unit 9 from sealing certificates was as follows: beavers-194; otters-65; lynx-54; and wolverines 58. No furbearers were sealed from Unit 10. Beaver and otter harvests were down substantially from the previous year; lynx and wolverine harvests were slightly higher.

Progress Meeting Objectives: The lack of efficient methods to estimate and directly monitor populations, compounded by unreliable snow conditions, has hampered progress toward developing measurable population objectives for furbearers in Units 9 and 10. Research on several species continues in other areas, but unless budgets increase, it is unlikely efforts will be extended on the Alaska Peninsula.

Currently the trapper questionnaire, opportunistic observations, and sealing requirements are adequate for management purposes as long as trapping effort remains relatively low. If fur prices and other factors lead to an increase in harvests, more intensive management may be required.

Project Location: Units 11 and 13 (38,300 mi^2)
Wrangell Mountains and Nelchina Basin

Project Objectives: Develop measurable objectives for all furbearer species throughout the region.

Work Accomplished During the Project Segment Period: Trapper questionnaires have been used for 7 years to determine trapping pressure, harvests, and furbearer abundance. This year we sent questionnaires to 144 Unit 11 and 13 trappers, and 100 (69%) responded. Of those responding, 45 (45%) did not trap during the 1993-94 season because of low fur prices. Trappers responding to the questionnaire reported an average of 22 years experience in Alaska. Most trappers averaged between 25 and 100 sets along traplines averaging 38 miles and used either highway vehicles or snowmachines as transportation. Unit 11 and 13 trappers reported red fox numbers were about the same as last year. Lynx numbers were reported to be lower than in the previous year. Numbers of marten and other furbearers were similar to last year.

Aerial transects established in 1988 to monitor lynx abundance and population trends were not flown during 1993-94 because of poor snow conditions.

During the years 1993-94, 35 wolverines (23 males, 12 females) were sealed in Unit 13 by 25 different trappers. In Unit 11, 4 trappers sealed 7 wolverines (3 males, 4 females). There were 80 lynx pelts sealed by 33 trappers from Unit 13 while 6 trappers sealed 19 lynx taken in Unit 11. This is the fourth year lynx trapping occurred in these units after a 3-year closed season. Eighteen trappers sealed 41 otters (21 males, 12 females and 8 sex undetermined) in Unit 13 during 1993-94. No otters were sealed from Unit 11. In Unit 13, 29 trappers sealed 226 beavers; no beavers were taken in Unit 11.

Sealing data for wolverine from both units indicate the number of wolverines trapped has stabilized at a lower harvest level over the past 4 years, following a period of decline. In Unit 13 between 1971 and 1982, the average annual take was 81 wolverines compared to 35 between 1983 and 1991. In Unit 11 the average annual wolverine take prior to 1985 was 27 animals, but since has averaged only 10. Overall success rates for wolverine trappers remain low. All wolverines taken in Unit 11 were trapped or snared, while in Unit 13, 6 (17%) were ground shot with the rest trapped or snared. The percentage of kittens in the Unit 13 harvest was 10%, suggesting the cycle has peaked and decreased. Trappers reported less effort expended to take lynx because of fewer numbers and continued low prices. Trappers also reported many of the lynx trapped were in very good condition with

substantial fat deposits. This paradoxical condition has often been reported during decreasing or low lynx numbers. Hares were reported scarce to nonexistent over much of Unit 13. The last hare cycle of Units 11 and 13 did not result in very high hare numbers and lasted only 1 to 2 years.

Otter harvests in Unit 13 have fluctuated between a high of 68 in 1983 and a low of 5 in 1990. These fluctuations in the take are probably not caused by changes in the otter population but relate more to trapper interest and price. The harvest of 41 was up appreciably from last year's take of 23 and probably reflected increased effort by trappers because of demand and higher prices for otters. Otter harvests in Unit 11 have been low and vary little over the past 10 years compared to Unit 13. No trend in harvest chronology was apparent.

This year, the Unit 13 beaver harvest was virtually identical to the 1992-93 harvest. For the last 5 years, the beaver harvest has averaged 168. Record beaver harvests occurred in 1986 and 1987, with over 300 beaver taken each year. Beavers appeared to be abundant and harvest regulations have been liberalized in recent years to increase the harvest. In Unit 11, beaver harvests have fluctuated in recent years between a high of 59 in 1985 to a low of 0 in 1994. In both units the catch per trapper has been fairly constant, but the number of beaver trappers fluctuated between years. Harvest chronology indicates most animals are taken either early in the trapping season or late spring.

Progress Meeting Project Objectives: Lynx are managed under a tracking harvest strategy where harvests are reduced or eliminated during cyclic declines and lows. The theory behind this is if lynx are not taken during the cyclic low, more adults will be available for breeding during the upswing of the cycle and produce more kittens. The value of this strategy to trappers is they can take more lynx during the high because there are more lynx present.

Between the years 1980-83, 611 lynx were taken in Unit 13 and 368 animals in Unit 11. During the 4 years of the current cycle, 442 lynx were taken in Unit 13 and 221 in Unit 11. This represented a harvest decline of 23% in Unit 13 and 40% in Unit 11 between cycles. Although it appears the harvest tracking strategy did not result in a higher catch during the peak years, there were some mitigating factors. The hare cycle between 1990-93 was a failure, and hares were not as abundant as during the 1980-83 period. Lynx trapping pressure was heavy in spite of low numbers during the initial decline in 1984-85 because of extremely high pelt prices. The number of lynx trapped between 1990-93 probably would have been lower if the Tracking Harvest Strategy had not been followed for 3 years. I recommend maintaining this management technique for lynx and because lynx reproduction has declined and the cycle is declining, the 1994-95 lynx season should be shortened.

Low fur prices reduced trapping pressure for the fourth year in a row. Some species like red fox and mink received very little pressure compared to the early 1980s. Projected fur prices for the upcoming season suggest some improvement.

Trapping pressure for marten, mink, and coyote is not expected to increase appreciably, but otter prices suggest increased trapping effort. I recommend no additional changes in season length or bag limits at this time.

Project Location: Units 14 and 16 (18,900 mi^2)
Upper Cook Inlet

Project Objectives: Develop measurable objectives for all furbearer species throughout the region.

Work Accomplished During the Project Segment Period:

Unit 14

During the 1993-94 trapping season, 230 beavers, 34 otters, 10 lynx, 13 wolverines and 11 marten were sealed from Unit 14. In addition, 8 beavers were taken under nuisance beaver permits. Minimum harvest data for fur species for which sealing is not required were collected with a voluntary reporting form included with the annual trapper questionnaire. Responses indicated at least 17 coyotes, 37 mink, 320 muskrats, 22 red foxes and 3 weasels were taken in Unit 14.

Unit 16

During the 1993-94 trapping season, 87 beavers, 31 otters, 12 wolverines, 4 lynx and 103 marten were sealed from Unit 16. In addition, 4 beavers were taken under nuisance beaver permits. Minimum harvest data for fur species for which sealing is not required were collected with a voluntary reporting form included with the trapper questionnaire. Responses indicated at least 42 coyotes, 14 mink, 2 muskrats, 35 red foxes, 20 red squirrels and 47 weasels were taken in Unit 16.

Units 14 and 16

Thirty-five trappers (46%) responded to the department's trapper questionnaire. Of these, 24 trapped during 1993-94; 21 of these trappers returned the voluntary response form detailing their total fur harvest for the season.

Units 14 and 16

Muskrat pushup count areas on Palmer Hay Flats State Game Refuge were ground-surveyed from 25 March to 1 April. The number of pushups was 4% higher than the base year of 1991 and 15% lower than 1993. However, the number of pushups in the 4 count areas nearest the Glenn Highway construction was still below that of 1991.

Four of 6 established furbearer track count trend lines were surveyed via snowmachine in Subunits 14A and 14B. Additional sites are being considered for trend lines.

Harvest objectives, based on long-term average harvests, were established in 1992 for the fur species for which sealing is required (except marten). Harvest was above objective levels for otters and wolverines in Unit 14 and only slightly below objective levels for beaver and lynx in Unit 14, and lynx and otter in Unit 16. Harvest was far below the desired level for beaver in Unit 16. These trends indicated increasing trapper interest and an encouraging fur market.

Progress Meeting Project Objectives: Developing direct, measurable furbearer population objectives is beyond the limit of our resources. However, track count transects can provide an index of population fluctuations, and these data could be correlated with harvest data. It may be possible, given several years' data, to develop indirect population objectives based on indices of furbearer abundance (e.g., tracks/km on transects) It will be important to continue track transects and also to gather data on track accumulation rates. However, because most tappers in this area trap for recreation, the investment necessary to collect data on actual population numbers and dynamics may not be warranted.

Project Location: Unit 17 (18,000 mi^2)
Northern Bristol Bay

Project Objectives: Develop measurable objectives for all furbearer species throughout the region.

Work Accomplished During the Project Segment Period:

Beaver - Beaver harvest data was not compiled for the 1993-94 trapping season. Preliminary data suggested a harvest of 686 beaver. This was higher than the harvest of 1992-93 (455), but well below the 5-year average of 988 beaver. Again, trappers reported beaver were abundant throughout the unit. Low prices paid last year and poor weather conditions were cited for the low harvest.

Fox - Red fox continued to increase throughout the unit. Prices paid for foxes were higher than in previous years.

Land Otter - Preliminary data suggested a harvest of 92 otters (51% males) during this period. This was lower than the 5-year average of 119. Trappers reported otters were abundant throughout the unit, but few trappers were afield because of low prices and poor weather conditions.

Lynx - Trappers harvested 12 lynx (2 males, 7 females, and 3 undetermined) during this reporting period. Lynx numbers continued to increase throughout the unit, but the population was still relatively low.

Marten - Data were not collected on the number of marten harvested in the unit during this period. Trappers reported stable marten numbers along the Nushagak, Mulchatna and Wood river drainages.

Wolverine - Preliminary data indicated a harvest of 30 wolverines during the 1993-94 season. This was lower than the 5-year average harvest of 35. Trappers reported wolverine populations were relatively high throughout the unit.

Progress Meeting Objectives: We sealed pelts and informally interviewed trappers during sealing. We sent trapper questionnaires to selected local trappers during Beaver Roundup. Nine questionnaires were completed but are not analyzed yet. We did not administer surveys during this reporting period.

Segment Period Project Costs:

	Personnel	Operating	Total
Planned	63.2	12.6	75.8
Actual	63.2	8.1	71.3
Difference	0.0	4.5	4.5

Submitted by

Karl Schneider
Management Coordinator

Project Title: Interior Furbearer Population and Habitat Management

Project Location: Unit 12 and Subunit 20E

Project Objectives and Activities:

UNIT 12:

1. Maintain accurate annual harvest records and indices of population trends based on sealing documents and trapper questionnaires.
   a. Seal furs as they are harvested and presented for sealing and analyze harvest patterns.
   b. Administer trapper questionnaire and interviews as a basis for determining the status of various furbearer populations.
2. Develop more specific population objectives for furbearers by 1995.

Subunit 20E:

1. Maintain accurate annual harvest records and indices of population trends based on sealing documents and trapper questionnaires.
   a. Seal furs as they are harvested and presented for sealing and analyze harvest patterns.
   b. Administer trapper questionnaire and interviews as a basis for determining the status of various furbearer populations.
2. Develop more specific population objectives for furbearers by 1995.

Unit 12 and Subunit 20E:

Lynx:
The Alaska Department of Fish and Game has adopted a lynx harvest tracking system to better manage lynx harvest throughout the lynx population cycle. Because of this program, we recommend the following new objective and activities for Unit 12 and Subunit 20E.

2. During the declining phase, the cyclic low, and during the initial recovery, seasons will be eliminated or reduced to less than 6 weeks and the allowable take may be limited. During the peak population years to 1 year following the peak, seasons will run from 1 November to 28 February with no bag limit.
   a. Conduct lynx and hare track count surveys to determine population trends.
   b. Collect lynx carcasses from trappers to determine the sex and age of the harvested population and to track reproduction through placental scar counts.

Wolverine:
The effects of harvest on wolverine population status and trend is a subject of concern throughout Interior and Southcentral Alaska. The estimated sustainable harvest for wolverines ranges from

4% to 15%. To adequately manage wolverine harvest in areas of concern, managers need minimally a population estimate and an idea of trapping pressure and distribution. To meet those needs, we recommend the following new objective for Unit 12 and Subunit 20E.

3. Manage wolverine harvest based on wolverine population size and trend and on trapping intensity.
   a. Obtain a wolverine population estimate in southern Unit 12 and western Subunit 20E by 1997.
   b. Maintain a current map of active traplines in Unit 12 and Subunit 20E.

To meet these new objectives, additional money will have to be budgeted for furbearers starting FY95.

Work Accomplished During the Project Segment Period:

Unit 12: Sealing certificates received through 13 June 1994 indicated the FY94 Unit 12 furbearer harvest included: 5 land otters, 23 beavers, 21 wolverines, and 120 lynx. Kitten lynx composed 1.7% of the harvest which was similar to FY93 (2.2%). The FY94 lynx and beaver harvest declined by 52% and 62%, respectively, from FY93. The wolverine harvest increased by 62%.

The trapper questionnaire and discussions with local trappers indicated beavers, muskrats, mink and ermine were common in Unit 12 during FY94, but snowshoe hares were scarce. Microtines were scarce to common. In response, the lynx population was low and declining. The marten population was probably stable at a low level. Red fox declined substantially from FY93 and were at low levels. Wolverines were uncommon and stable except in the mountainous country in southern Unit 12. In that area, wolverines were more common and appeared to be increasing. Low market prices continue to negatively affect trapper effort for most furbearer species. Most of the Unit 12 trappers who responded (86%) indicated they trapped less during FY94. In response to the declining lynx population, the lynx season will be shortened and will run between 1 December and 15 January during 1994-95.

Subunit 20E: The following furbearers were sealed during FY94: 1 land otter, 9 beavers, 10 wolverines, and 43 lynx. The wolverine harvest increased from 4 to 10, reflecting the increased number of wolverine track and animal sightings by trappers and department personnel. The lynx harvest declined by 44%. The percentage of kitten in the harvest was 2.3, down from 4.5% during 1992-93.

Trapper questionnaires, discussions with local trappers, and incidental observations by department personnel indicated during FY94 the marten population remained low but seemed to be increasing slightly; microtine populations, especially red-backed voles, were increasing; the red fox population declined substantially; the wolverine population was low but increasing; and the lynx population declined substantially and was stable only in the few areas supporting snowshoe hares or high densities of red squirrels. The lynx population is expected to decline further during FY95.

In response, the lynx trapping season will be shortened next year and will run between 1 December and 15 January.

Progress Meeting Project Objectives: We maintained accurate annual harvest records for the four species sealed. Data from lynx carcass collections, trapper questionnaires, field observations by department personnel, and hunters and trappers provided adequate information about furbearer population status and trend. To monitor trapper effort, distribution, and the probable effects on the furbearer populations, we mapped the active traplines in Unit 12 and Subunit 20E, recorded fur prices, and interviewed a sample of trappers on trapping intensity.

Project Location: Unit 19

Project Objectives and Activities:

1. Annually determine current status and population trends for each furbearer species and their primary prey species, assess trapper effort and distribution, and collect estimates of harvest for all furbearer species.
   - 1a. Seal furs as they are harvested and presented for sealing and analyze harvest patterns.
   - 1b. Conduct trapper questionnaire and interviews as a basis for determining the status of various furbearer populations.

Beaver:

1. Manage the various subpopulations to maintain a mean pelt size >50 inches and <25% kits in the annual harvest.
2. Manage the population to maintain a mean density of not less than 1 active colony per 3.2 km of suitable waterway, as determined through periodic fall cache surveys.

Marten:

1. Colllect accurate estimates of annual harvests through comparisons of Fur Acquisition Reports, Fur Export Reports, and trapper questionnaires.
2. Manage the population to maintain >50% males in the annual harvest and a ratio of young:adult females of not less than 2:1 in the annual harvest.

Lynx, River Otter, and Wolverine:

1. Maintain accurate annual harvest records based on sealing documents.
2. Manage the wolverine population to maintain >50% males in the annual harvest.

Work Accomplished During the Project Segment Period: Because all sealing documents for the 1993-94 season have not yet been processed, the following data are based on the 1992-93 trapping season. For Unit 19, 128 beavers, 15 red fox, 32 lynx, 1169 marten, 32 mink, 1 muskrat, 27 river otters, and 42 wolverines were harvested. According to Unit 19, 21A, and 21E trapper questionnaires, coyotes were stable but still scarce, lynx were stable but scarce, red fox remained abundant, marten were very common and stable, muskrats were stable but scarce, mink were

stable at low populations, beaver were abundant and stable, wolverines increased but were still scarce, and river otter were common at stable population levels.

We sent questionnaires to 99 trappers in the area to evaluate status and trends in populations, as well as numbers harvested. Results have been tabulated for the 1993-94 season. Marten carcass collections were repeated. We sealed pelts throughout the trapping seasons and analyzed harvest of beaver, river otter, lynx and wolverine by evaluating sealing documents.

Furbearer harvests remained very low compared to previous years, largely as a result of low fur prices. Eleven of the 38 respondents to the trapper survey indicated they did not trap. The primary reasons for not trapping were low fur prices and the chance to "let the line rest."

During the 1992-93 trapping season, 213 marten carcasses were collected and sex and age ratios were evaluated. The male:female ratio in the harvest was 1.60:1 and the young:adult female ratio was 4.15:1. These data were not derived from very many carcasses because of fewer participating trappers. Still, both these indices indicate a healthy and probably expanding marten population. With few participants there is no threat of overharvest.

Progress Meeting Project Objectives: All harvest objectives for furbearers were accomplished during FY93. Sealing of furbearer pelts was accomplished through the use of several village sealing agents, traveling fur buyers, or efforts of department personnel. Analyses of harvest and population trends will be completed for the 1993-94 season when all sealing certificates, acquisition, export, and trapper questionnaires are submitted.

Population assessment objectives were not met. Weather did not permit track count flights and beaver cache counts. However, other sources of information (e.g., trapper questionnaires, flights for other reasons) suggest healthy populations.

Project Location: Subunits 20A, 20B, 20C, 20F, AND 25C

Project Objectives and Activities:

1. Maintain accurate records of furbearer harvest, pelt export, pelt acquisition, and population trends.
   a. Compile and summarize data on sealing certificates, fur export reports, fur acquisition reports, and trapper questionnaires.
2. Manage beaver in the lower Chena River portion of Subunit 20B for an annual fall beaver colony density of <0.5 colonies/km of river and mitigate problems arising from beaver activities.
   a. Conduct annual fall beaver cache surveys in the lower Chena River and Badger Slough. Open a limited registration trapping season if densities are >0.5 colonies/km.
   b. Issue nuisance beaver permits to remove problem animals.

c. Coordinate with Department of Transportation and Public Facilities (DOT&PF) to minimize dammed culverts and flooded roads.

3. Manage beaver in Subunits 20A, 20C, 20F, 25C and the remainder of 20B for an annual subunit harvest that includes <20% kits when the harvest for that subunit exceeds 50 beaver.
   a. Determine the proportion of harvested beaver with pelts <52 inches (kits).
4. Manage lynx with a harvest tracking strategy, whereby seasons are most liberal when lynx are abundant, and most conservative when lynx are scarce.
   a. Estimate the annual sex and age of harvested lynx by examining carcasses from Subunits 20A and 20B.
   b. Determine whether or not lynx pelt measurements can be used to index the number of kittens in the harvest.
5. Maintain furbearer trapping seasons during periods of peak pelt primeness.
6. Summarize data on the status of wolverines in the Fairbanks area.

Work Accomplished During the Project Segment Period: Preliminary sealing certificate data for 1993-94 indicate trappers harvested 853 beavers, 245 lynx, 32 otters, and 41 wolverines from the Fairbanks Area. The subunit harvest of these 4 species, respectively, was 76, 76, 4, and 14 in Subunit 20A; 587, 126, 21, and 13 in Subunit 20B; 176, 24, 7, and 4 in Subunit 20C; 14, 13, 0, and 3 in Subunit 20F; and 0, 6, 0, and 7 in Subunit 25C.

In 1992-93 export and acquisition reports indicate trappers exported or sold to fur buyers 3637 furs from Unit 20, 56% of which were marten. This was a decrease from 1991-92 when 6608 were exported or sold with 68% of which were marten.

We synthesized trapper questionnaire local area question responses for the 1992-93 season statewide report. We reviewed the mailing list for 1993-94. In April 1994, we sent out 96 questionnaires; 36 responses were received as of this report, and we are mailing reminder letters to all nonreporting trappers.

A beaver cache survey was conducted 22-23 September 1993 along the Chena River and Badger Slough. The cache estimate was 0.5 caches per kilometer of river for both rivers combined. Eight registration permit trappers killed 21 beavers during the 1 December - 31 January season.

We issued 31 nuisance beaver permits, resulting in at least 72 beavers being taken during regulatory year 1993. Distinct problem areas seem to be Noyes Slough and the sloughs that flow through and around North Pole.

Three subunits, 20A, 20B, and 20C, had beaver harvests of over 50 beavers. Sealing certificate data indicate Subunit 20A had 7% kits, 20B had 13%, and 20C 7% in the harvest.

The 1993-94 lynx harvest data indicated a decrease in the local population. The season was shortened by two weeks to a six week season for 1994-95.

A meeting was held in October 1993 to discuss the lynx harvest tracking strategy. We decided that carcasses would not be collected in 1993-94, pending the analysis of the existing carcass database. We are planning to collect carcasses during the 1994-95 season.

We are analyzing the data and will report our findings in the next management report.

Furbearer seasons are being maintained during the peak of pelt primeness.

We summarized information from trapper questionnaires on the status and trend of wolverines in the Fairbanks Area.

Progress Meeting Project Objectives: We are meeting the objective of maintaining accurate fur harvest records. We are having problems with some fur dealers, who are appointed sealers, incompletely filling out the sealing certificates. We have met with these fur dealers and stressed the importance of accurate and complete sealing records.

In areas where high beaver densities result in human-beaver conflicts, the registration trapping season and issuing nuisance permits have adequately controlled problems. We are meeting our cache density objectives for the permit area on the Chena River. Along with educating the public on safeguards against beaver damage to property, we have also been coordinating with the DOT/PF to combat problem areas where beavers are endangering road integrity.

We are meeting our objective of less than 20% kits in the beaver harvest in subunits with harvests over 50. Increasing beaver pelt prices could increase harvest, and percentage of kits should continue to be monitored.

The lynx harvest tracking strategy seems to be working well to adjust the lynx harvest in relationship to population cycles.

We are meeting our objective to maintain seasons during the peak of primeness, except for our nuisance beavers. During the next reporting period, we should develop ideas to increase harvest of nuisance beavers during the winter.

Trapper input from the questionnaire indicates wolverine numbers are stable in most areas. However, trappers in areas receiving increased pressure notice a reduction in wolverine sign. Wolverines exist at low enough densities that even moderate trapping pressure could affect localized wolverine numbers. A wolverine TIPS estimator is planned fall 1994 for Subunit 20A.

We recommend no changes to the objectives.

Project Location: Subunit 20D

Project Objectives and Activities:

1. Monitor furbearer population trends and annual harvest of furbearers using sealing documents, fur acquisition reports, fur export reports, trapper questionnaires, and trapper interviews.
   a. Seal furs as they are harvested and presented for sealing and analyze harvest patterns.
   b. Conduct trapper questionnaire and interview as a basis for determining the status of various furbearer populations.
2. Monitor trends in abundance of furbearer prey species by establishing snowshoe hare and small mammal trend surveys.
   a. Conduct snowshoe hare track surveys and small mammal trapline surveys to monitor prey abundance.
3. Determine lynx reproductive status by purchasing and examining lynx carcasses and reproductive tracts as needed.
   a. Purchase lynx carcasses from trappers and examine for reproductive status as needed.

Work Accomplished During the Project Segment Period: Pelts were sealed for beaver, lynx, otter, and wolverine trapped in Subunit 20D during the 1993-94 trapping season. Preliminary trapper harvest totaled 8 beavers, 40 lynx, 3 otters, and 7 wolverines. We mailed trapper questionnaires to trappers in Subunit 20D. We quantified trapper responses to furbearer abundance and population trends.

No small mammal abundance data were collected in fall 1993 due to higher priority tasks in Subunit 20D.

No lynx carcasses were purchased from trappers during this reporting period.

Progress Meeting Project Objectives: We accomplished management objectives this reporting period by sealing furs of beaver, lynx, otter, and wolverine and analyzing harvest patterns. We mailed trapper questionnaires and analyzed the results. However, we did not monitor trends in prey abundance.

Project Location: Subunits 21B, 21C, AND 21D

Project Objectives and Activities:

1. Manage furbearer populations to sustain furbearers at levels high enough to provide maximum consumptive and nonconsumptive use.
   a. Seal furs and analyze harvest patterns.
   b. Conduct trapper questionnaire and interviews as to determine the status of various furbearer populations.

Work Accomplished During the Project Segment Period: Sealing certificates received in Galena through 2 June 1994 indicated harvest of furbearers from Subunits 21B, 21C, and 21D were 150 beavers, 21 lynx, 7 otters, and 24 wolverines. Harvest of beaver were up and wolverine catch was threefold over previous years. Lynx tracks after the trapping season indicated lynx were common so effort was also down since we are still in the 10-year population peak.

Prioritizing marten, most unit trappers set incidentally for lynx, otter, and wolverine. Low marten prices and poor snow conditions during part of the season directly influenced trapping effort. Beaver and otter continue to be abundant.

Progress Meeting Project Objectives: A variety of circumstances influence trapper effort and catch within the unit. Fur prices, social activities, cultural backgrounds and weather conditions all contribute to the effort trappers expend. These factors keep harvests low enough to meet the objectives.

Project Location: Unit 24

Project Objectives and Activities:

1. Manage furbearer populations to sustain furbearers at levels high enough to provide maximum consumptive and nonconsumptive use.
   a. Seal furs and analyze harvest patterns.
   b. Conduct trapper questionnaire and interviews to determine the status of various furbearer populations.

Work Accomplished During the Project Segment Period: During the report period, sealing certificates in Galena indicated a harvest of 5 otters, 28 wolverines, 129 lynx and 185 beavers. Lynx numbers were up, indicating we are at the 10-year population peak.

Most unit trappers set for lynx, otter, and wolverine incidentally to marten trapping. Low marten prices and poor snow conditions during part of the season directly influenced trapping effort. Beaver and otter continue to be abundant in the southern portion of the unit.

Progress Meeting Project Objectives: A variety of circumstances influence trapper effort and catch within the unit. Fur prices, social activities, cultural backgrounds and weather conditions all contribute to the effort trappers expend. These factors keep harvests low enough to meet the objectives.

Project Location: Subunits 25A, 25B, 25D, 26B, and 26C

Project Objectives and Activities:

1. Maintain accurate annual harvest records and indexes of population trends based on sealing documents and trapper questionnaires.
   a. Seal furs as they are harvested and presented for sealing and analyze harvest patterns.
   b. Conduct trapper questionnaire and interviews as a basis for determining the status of various furbearer populations.
2. Develop more specific population objectives for furbearers by 1995.

Work Accomplished During the Project Segment Period: Harvest data for sealed species including lynx, wolverine, beaver, and otter are being compiled and analyzed based on sealing forms. Final harvest figures are not available, but as in previous years, the harvest of sealed species was greatest in Unit 25. Fur prices have declined significantly in the last 3 years, and trapping effort has declined accordingly. The remaining trapping effort is focused primarily on marten and lynx. Snowshoe hares are nearing their cyclic low, and lynx harvests are declining. An extended flood in May 1992 on the flats around Fort Yukon decimated small mammal and furbearer populations over a large area and contributed to a reduced harvest of most species.

Progress Meeting Project Objectives: Harvests of all furbearer species sealed by ADF&G personnel were within population management objectives. Specific objectives to determine relative abundance of lynx, marten, and snowshoe hares, and beaver and marten habitat use and dispersal were not met because funding was limited. Objectives involving maintaining accurate harvest records, sealing furs, and obtaining trapper observations on furbearer numbers are being met. Population objectives for furbearers are being developed.

Segment Period Project Costs:

	Personnel	Operating	Total
Planned	97.8	15.0	112.8
Actual	80.8	1.0	81.8
Difference	17.0	14.0	31.0

Explanation: Poor spring survey conditions prevented completion of wolverine surveys in Units 19 and 20E. Fewer lynx carcasses were purchased than anticipated because of the cyclic low in the population.

Submitted by

Kenton P. Taylor
Management Coordinator

Project Title: Western Alaska Furbearer Survey and Inventory

Project Location: Unit 18 (42,000 mi^2)
Yukon-Kuskokwim Delta

Project Objectives and Activities:

1. Maintain furbearer population at existing levels in Unit 18.
   a. To estimate abundance and use of selected furbearers in Unit 18.
   b. To provide support to the fur sealing program.
2. Minimize adverse interactions between furbearers and the public.
3. Develop updated population management objectives in consultation with the public and other agencies.

Work Accomplished During the Project Segment Period: We mailed a trapper questionnaire during March 1994.

We sent public notices to all village post offices and fur sealers for the fifth year, informing hunters and trappers that all harvested wolves, wolverines, beaver, otter, and lynx must be sealed. Also, we posted notices explaining the use of fur export permits and the importance of reporting all furbearer harvests. We contacted all fur sealers about proper procedures for sealing pelts and filling out fur acquisition reports. Twenty-nine fur sealers were active in Unit 18 during the 1993-94 season, of which a few were also licensed fur buyers. One of the largest fur buyers in Alaska still operates out of Bethel.

Beaver dam and damage complaints were received by the city of Bethel and other villages throughout the Yukon-Kuskokwim Delta. Several villages asked about removing the beaver dams with the use of dynamite and were referred to Habitat Division staff in Anchorage.

Pelts were sealed in the Department of Fish and Game office in Bethel and in the villages usually incidental to public meetings and license vending. Also, pelts from other Units were sealed. Fur sealing certificates were coded and filled out appropriately so that harvests for different drainages could be evaluated.

Progress Meeting Project Objectives: Although very few responses from the trapper questionnaire were received concerning the 1993-94 season, furbearer trends and abundance were evaluated for each species. Abundance of all species of furbearers remained high, especially beaver, otter, fox, marten, and muskrat. Some trappers reported lower abundance of mink. Because of late freeze-up and lack of snow for travel to trapping areas, trappers could not get to mink trapping areas during the trapping season.

The preliminary harvest of furbearers in Unit 18 during the 1993-94 regulatory year is estimated at 2000 beaver, 300 foxes (red and white combined), 3000 mink, 400 otters, 10 lynx, 5 wolverine, 1000 muskrats, and 150 marten. These harvest records indicate there is very little interest in the

sale of pelts except mink and beaver. Fur prices have been depressed since the 1989-90 trapping season. Mink prices and interest in buying Kuskokwim mink was the only exception during the 1993-94 season. However, warm weather in December and lack of snow prevented trappers from harvesting normal numbers of mink. The reported harvest decline in furbearers, except lynx and mink, resulted from low price, not low abundance. Observations by trappers and staff indicate all furbearer species are abundant and continue to increase throughout the Yukon-Kuskokwim Delta.

Responding to several villages, Habitat Division explained that destroying beaver dams by use of dynamite was illegal because these dams were located on anadramous fish streams.

Compliance with fur sealing requirements has increased, presumably because of the public notices posted in all the villages and the personal contacts made by Department staff.

Project Location: Unit 22 (25,230 mi^2)
Seward Peninsula and that portion of the Nulato Hills draining west into Norton Sound.

Project Objectives and Activities:

1. Establish and maintain viable numbers of furbearers in Unit 22.
   a. Assess harvest, interview hunter/trappers, and seal all furs presented for sealing.
   b. Establish and maintain license vendors and sealers in all Unit 22 villages.
   c. Improve compliance with sealing requirements through public communication and education.
   d. Conduct aerial beaver cache counts in selected areas of the Unit to develop an index of relative abundance.
2. Minimize adverse interactions between furbearers and the public.
3. Develop updated population management objectives in consultation with the public and other agencies.

Work Accomplished During the Project Segment Period: Harvest data from furbearer sealing records indicate the following:

Beaver - Nine Unit 22 residents harvested 41 beaver. Eleven were harvested from Unit 22A, 4 from Unit 22B, 25 from Unit 22C, and 1 from Unit 22D. Harvest chronology data are as follows: September - 1, November - 4, December - 13, January - 5, February - 10, March - 6, and May - 2. A breakdown by method of take is as follows: Shooting - 2, trapping - 18, and snaring - 21. Snowmachine was the predominant method of transportation.

Lynx - One Unit resident using a snowmachine for transportation trapped 2 lynx (sex unknown) during January from Unit 22A.

River Otter - Six Unit residents using snowmachines for transportation harvested 9 otters (3 males, 2 females, 4 of unknown sex). Four are from Unit 22B, 4 from Unit 22C, and 1 from Unit 22E. Harvest chronology is as follows: December - 1, February - 4, March - 2, and April - 2.

Wolverine - Twenty-three wolverines (14 males, 4 females, and 5 of unknown sex) were harvested by 19 hunter/trappers, all of whom were Unit residents. A breakdown of the harvest by Unit is: 22A - 3, 22B - 9, 22C - 3, 22D - 4, and 22E - 4. Chronology of the harvest is: November - 1; December - 4; January - 12; February - 1; March - 2; and April - 3. The reported method of take is as follows: ground shooting - 17, trapping - 4, and snaring - 2. All 19 hunter/trappers used snowmachines for transportation.

We continued to use the educational program, developed several years ago, explaining the importance of wildlife management concepts and regulations throughout Unit 22 schools. Staff made several trips to villages explaining the need for regulations and harvest reporting as well as assisting license vendors. Staff also spent a substantial amount of time answering questions, making phone calls, writing articles, sending out mailings of regulation material, and supporting local Unit 22 license vendors and fur sealing agents.

Progress Meeting Project Objectives: We suspect the magnitude of the unreported harvest of some furbearers each year in Unit 22 is considerable. However, an increase in purchased licenses in some communities strongly reflects our efforts to inform the public of the importance of wildlife conservation and the need for regulations. We need additional contact with local residents, primarily within the villages, if we are to achieve complete compliance with current regulations. Because of inclement weather, we did not survey beaver caches.

Project Location: Unit 23 (43,000 mi^2)
Kotzebue Sound and Western Brooks Range

Project Objectives and Activities:

1. Maintain furbearer populations capable of sustaining harvests at the 1983-84 to 1988-89 levels, recognizing that populations will fluctuate in response to environmental factors.
   a. Collect sufficient data to develop one or more trend count areas for lynx by 1996.
2. Minimize adverse interactions between furbearers and the public.

Work Accomplished During the Project Segment Period: Information regarding the population status of lynx, wolverines, river otters, and beavers were gathered from fur sealing certificates, conversations with Unit 23 residents, and opportunistic observations of furbearers and their tracks during other wildlife surveys. We maintained furbearer sealing and fur buyer reporting programs for monitoring harvest.

Wolverine - Based on opportunistic sightings by staff and residents, we believe wolverine populations are stable. During the 1993-1994 regulatory year, 9 hunters sealed 17 wolverines (10

males and 7 females). Fifteen were shot and 2 trapped. Twenty-three percent of the harvest was in the Noatak drainage, 29% in the Kobuk, and the remaining 47% of the harvest was taken south of the Kobuk River. All hunters resided in Unit 23.

Beaver - Residents reported increasing signs of beaver in the lower Noatak River drainage. Residents of the Kobuk drainage reported beaver populations at "medium" levels, either stable or increasing in abundance. New lodges have been seen in the Squirrel River. Beaver population levels in the Selawik drainage are still high, based on our observations of beavers in marginal habitat. Only 2 beavers were sealed during 1993-94. Residents of Selawik have expressed concern about the potential impact of increasing beaver populations on the availability of whitefish.

Lynx - Lynx population levels remained extremely low during 1993-94. Agency personnel and residents observed single sets of tracks in the Noatak and Kobuk drainages. The snowshoe hare population is still low, but reported sightings are increasing, especially in southern portions of the Unit. We anticipate a corresponding increase in lynx within the next few years. One lynx was sealed from the Kobuk River during 1993-94, and another was reported taken but not sealed from the upper Kobuk.

Mink and Marten - No information is available regarding mink populations or harvest. Presence of marten in the middle Kobuk and in the Igichuk Hills may represent a northern range extension for the species.

Red Fox - Limited information on red fox suggests populations were stable or increasing in some areas. One case of rabies was confirmed in Ambler this spring.

River Otter - Based on observations during other wildlife surveys, river otter densities seem to be increasing in the Noatak and Kobuk drainages. No river otters were sealed during 1993-94.

Progress Meeting Project Objectives: The department maintained open communication with area trappers to assess trapper effort and distribution. The department is currently developing a statewide trapper survey to collect local data on furbearer population trends. Current furbearer populations in Unit 23 seem capable of sustaining target harvest levels, with the exception of lynx.

Lynx densities remained low. Hare and lynx tracks enabled staff to identify general areas which may be suitable for trend count areas as populations increase. Potential areas include the northern Seward Peninsula, Kobuk River, and Selawik River drainages.

The inconsistency between seasons and bag limits for hunting and trapping was discussed at various advisory committee meetings. The variations in season dates are not based on biological considerations regarding management of furbearers in Unit 23, and increases the complexity of regulations for those who both hunt and trap. We again recommend adoption of the same season dates for hunting and trapping furbearers in Unit 23. Efforts to simplify furbearer hunting and

trapping regulations and sealing requirements and to explain the need for harvest information in wildlife management should remain an objective for the next segment period.

Project Location: Unit 26A (53,000 mi^2)
Western North Slope

Project Objectives and Activities:

1. Establish and maintain viable furbearer populations in Unit 26A.
   a. Monitor harvest through the statewide sealing program.
   b. Conduct a review of information collected in the past for population trend information.
2. Minimize adverse interactions between furbearers and the public.
3. Develop updated population management objectives in consultation with the public and other agencies.

Work Accomplished During the Project Segment Period:

Arctic Fox - Arctic foxes were abundant in Unit 26A. However, because hunters and trappers are not required to seal foxes, harvest data for arctic foxes are not available. Relatively fewer foxes were trapped because of low fur prices.

Red Fox - No population data are available for red foxes in Unit 26A. No red foxes were reported harvested.

Coyote - Coyotes are rare in Unit 26A. No population or harvest data are available.

Lynx - Lynx population density is very low in Unit 26A. No lynx were reported harvested in the Unit.

Wolverine - Magoun (1984) estimated a minimum population of 821 wolverines in Unit 26A. A more recent estimate of population size is not available. Wolverine sightings were logged during 18 hours of moose surveys in the Colville River drainage from 8 April to 9 April 1994; 7 wolverines were observed.

Twelve wolverines (two females, 7 males, and 3 unknown) from Unit 26A were sealed during 1993-94. Ten were ground shot, 1 was trapped, and 1 was unknown. Snowmachines were used for transportation for 11; 1 was unknown.. Three were taken during November, 4 during March, 4 during April, and 1 was unknown. Many more wolverines were harvested and not reported. However, reliable data for the unreported harvest are not available. Twelve wolverines sealed represents an increase in harvest from recent years. Although this may simply reflect increased harvests, it could also reflect improved compliance with sealing requirements.

River Otter - Although river otters are found in Unit 26A, their densities are very low. No river otters were reported harvested during 1993-94.

Progress Meeting Project Objectives: It is difficult to determine whether current harvest levels are within sustained yield limits because little population and harvest information are available. Additional efforts are needed to assess furbearer population status and monitor harvest. At the present time, inventory of furbearer populations, other than wolves, remains low in priority in Unit 26A compared to other species. A village harvest monitor program is being developed in cooperation with the North Slope Borough. In order to collect better furbearer population information, the department should hire an assistant area biologist to complete this project.

Segment Period Project Costs:

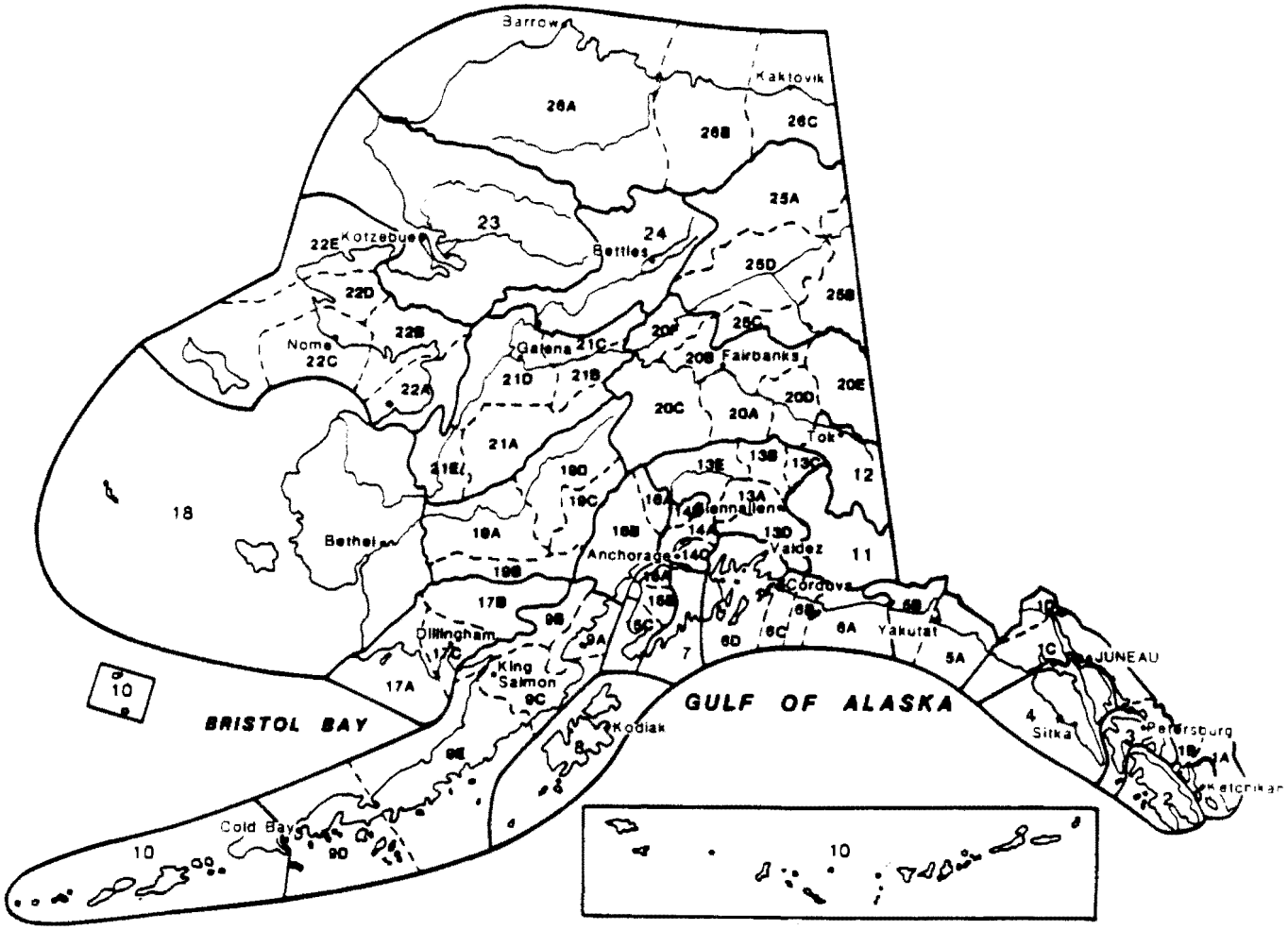
	Personnel	Operating	Total
Planned	21.0	10.4	31.4
Actual	21.0	9.4	30.4
Difference	0	1.0	1.0

Explanation: Beaver cache surveys were not completed in Unit 22 because of poor weather.

Submitted by

Steve Machida
Survey-Inventory Coordinator

Alaska's Game Management Units



Federal Aid in Wildlife Restoration

The Federal Aid in Wildlife Restoration Program consists of funds from a 10% to 11% manufacturer's excise tax collected from the sales of handguns, sporting rifles, shotguns, ammunition, and archery equipment. The Federal Aid program then allots the funds back to states through a formula based on each state's geographic area and the number of paid hunting license holders in the state. Alaska receives 5% of the revenues collected each year, the maximum allowed. The Alaska Department of Fish and Game uses the funds to help restore, conserve, manage, and enhance wild birds and mammals for the public benefit. These funds are also used to educate hunters to develop the skills, knowledge, and attitudes necessary to be reponsible hunters. Seventy-five percent of the funds for this project are from Federal Aid.