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FURBEARERS

Susan M. Abbott, Editor

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Project Title: Southeast Furbearer Population Management

Overview: Principal furbearer species in Southeast Alaska include marten, otter, beaver, and mink. Wolverines are found in low densities and lynx occur cyclically. Because the harvest levels for furbearers are generally a function of market prices, rather than species availability, harvests do not reliably indicate population status. However, information from trappers, observations in the field, and harvest data suggest that Southeast furbearer populations are stable.

Project Location: Subunit 1A and Unit 2 (8,911 mi^2)
Subunit 1A - Ketchikan area including mainland areas draining into Behm and Portland Canals
Unit 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. Maintain furbearer populations capable of sustaining harvests at the 1984-85 level as follows:

Species	Subunit 1A	Unit 2
Beaver	39	224
Marten	203	1,039
Otter	65	192
Wolverine & Lynx	Occasional	Not present

2. Seal beaver, marten, otter, lynx, and wolverine as they are harvested and presented for sealing.
3. Contact reliable observers to obtain general information about the status and trends of furbearer populations.

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

Species	Subunit 1A	Unit 2
Beaver	42	255
Marten	643	709
Otter	84	43
Wolverine	0	--

We obtained information about furbearers through a mail-out trapper survey during 1991-92. We also obtained anecdotal information from personal contacts with hunters and trappers.

Progress Towards Meeting Project Objectives: Otter and mink populations remained relatively high in both Subunit 1A and Unit 2. Information from the annual trapper survey suggests abundant mink and otter populations are in the area.

Trappers believe marten populations are abundant in Subunit 1A. This is supported by sealing records which show that several long-time trappers caught more marten on traplines during 1991-92 than during any previous season in the past decade. Trappers also indicated that small rodent populations appeared quite high in parts of the subunit. Trappers consider marten to be common in Unit 2.

Based on trapper input, beavers are currently considered common in Subunit 1A and abundant in Unit 2. Six times more beaver were trapped in Subunit 1A during 1991-92 than during the previous season. In Unit 2, the 1991-92 beaver harvest was up 33% from the previous season.

All furbearer management objectives were met. Nonetheless, with the ever-increasing road access in Unit 2, continued close attention will be given to furbearer populations on Prince of Wales Island.

Project Location: Subunit 1B and Unit 3 (5,900 mi^2)
Southeast Mainland from Cape Fanshaw to Lemesurier Point and adjacent islands

Project Objectives: Maintain furbearer populations capable of sustaining harvest at the 1984-85 levels as follows:

Species	Subunit 1B	Unit 3
Beaver	4	52
Marten	185	250
Otter	15	141
Wolverine	4	3

Work Accomplished During the Project Segment Period: During the sealing process, we questioned trappers about their impressions of populations and regulations. Most trappers felt that furbearer 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 was expressed. We considered requests for permits to remove problem beavers. Beaver excluders were recommended in lieu of removing the beaver but we issued one permit when the excluder was ineffective.

Progress Towards Meeting Project Objectives: The harvest of furs in any one year often indicates prevailing market prices more than of furbearer abundance. Population trends can only be determined over long periods of time, if at all, in this region where trapping is usually a secondary source of income or pursued only as a hobby. As the

following table shows, the reported harvest was mixed compared with the objectives. There were no indications that populations were being reduced by trapping.

Species	Subunit 1B	Unit 3
Beaver	0	70
Marten	319	127
Otter	0	69
Wolverine	6	2

Project Location: Subunit 1C (7,562 mi^2)
Southeast Alaska mainland and islands of Lynn Canal and Stephens Passage between Cape Fanshaw and the latitude of Eldred Rock, including Sullivan Island and drainages of Berners Bay

Project Objectives and Activities:

1. Subunit 1C furbearer management objectives
   Maintain furbearer populations capable of sustaining harvest at the 1984-85 level as follows:

Beaver	36
Lynx	1
Marten	245
Otter	34
Wolverine	9

2. Subunit 1C furbearer management activities
   a. Seal beaver, marten, otter, lynx, and wolverine as they are harvested and presented for sealing.
   b. Contact reliable observers to obtain general information on the trapping season.

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 about target species abundance, prey abundance, trapping conditions, and trapping patterns.

Progress Towards Meeting Project Objectives: Trappers took 11 beaver, 193 marten, 5 otter, and 6 wolverine. Two otters killed in an ADF&G fyke net at Peterson Creek were brought in and sealed. No lynx have been taken in this area since 1985.

Subunit 1C furbearer populations appear stable. Harvest levels were below management goals for beaver, lynx, marten, and otter. The number of wolverines harvested was close to the management goal. Through the use of trapper questionnaires and activity calendars we should be able to better understand future fluctuations in fur harvest.

Project Location: Subunit 1D (2,670 mi^2)
Southeast Alaska mainland north of the latitude of Eldred Rock, excluding Sullivan Island and drainages of Berners Bay

Project Objectives and Activities:

1. Subunit 1D furbearer management objectives:
   Maintain furbearer populations capable of sustaining harvest at the 1984-85 level as follows:

Marten	100
Otter	6
Wolverine	9

2. Subunit 1D furbearer management activities:
   a. Seal beaver, marten, otter, lynx, and wolverine as they are harvested and presented for sealing.
   b. Contact reliable observers to obtain general information on the trapping season.

Work Accomplished During the Project Segment Period: We collected fur harvest data through mandatory sealing interviews. Trapper questionnaires gave more information about species abundance, prey abundance, trapping conditions, and trapping patterns.

Progress Towards Meeting Project Objectives: Furbearer populations within Subunit 1D appear stable, although otter harvest objectives were not met. Sixty marten, 9 otter, 6 lynx, and 2 wolverine were harvested. Trapper questionnaires received from Subunit 1D trappers suggest no changes in perceived furbearer population levels, although deep snows may have discouraged trapping effort.

Project Location: Unit 4 (5,800 mi^2)
Admiralty, Baranof, Chichagof, and adjacent islands

Project Objectives: Maintain furbearer populations capable of sustaining harvest at the 1984-85 level as follows:

Beaver	14
Marten	1,355
Otter	167

Work Accomplished During the Project Segment Period: We sealed marten, otters, and beavers within 30 days of harvest. We examined furs at sealing, determined sex, and took measurements. We contacted trappers on northeastern Chichagof Island for opinions about declining marten harvests.

Progress Towards Meeting Project Objectives: It is not possible to determine if the objective of maintaining a population adequate to provide a harvest of 12 beavers, 1,355 marten, and 167 otters was met. Harvest does not necessarily reflect population levels. We sealed 2,087 marten, 2 beavers, and 131 otters. There is no indication that trapping has depressed furbearer populations except on northeastern Chichagof Island where a system of logging roads provides access to most habitat. The 1991-92 marten and mink season was cancelled by emergency order on northeastern Chichagof Island in response to declining marten populations.

Project Location: Unit 5 (6,235 mi^2)
Cape Fairweather to Icy Bay, eastern Gulf of Alaska coast

Project Objectives and Activities:

1. Unit 5 furbearer management objectives are to maintain furbearer populations capable of sustaining harvest at the 1984-85 level as follows:

Beaver	3
Lynx	1
Marten	44
Otter	2
Wolverine	2

2. Unit 5 furbearer management activities
   a. Seal beaver, marten, otter, lynx, and wolverine and as they are harvested and presented for sealing.
   b. Contact reliable observers to obtain general information on the trapping season.

Work Accomplished During the Project Segment Period: We sealed furs in Yakutat. We analyzed harvest from furbearer sealing certificates and opportunistically collected anecdotal information on furbearer abundance from hunters, ADF&G staff, and Fish and Wildlife Protection officers. We did not hold any planning meetings, nor did we do any surveys during the report period.

Progress Towards Meeting Project Objectives: Division of Commercial Fisheries 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 about furbearer sightings. Eight beaver, one otter, and 47 marten were sealed. For the third year in a row, no lynx were taken. Management objectives for beaver and marten were met or exceeded, while otter, lynx, and wolverine objectives were not met. All furbearers killed were taken by local residents.

Segment Period Project Costs:

	Personnel	Operating	Total
Planned	$20.9	$2.5	$23.4
Actual	$20.9	$2.5	$23.4
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 of Alaska 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 172 pelts (63 beavers, 59 otters, and 12 wolverines). Thirty otters were live-trapped near Cordova for relocation to Utah. Over the past four years, 75 otters were captured for this effort. Records were examined to assure that additional live-capture planned for the coming year is distributed to avoid depletion of local populations. We sent 34 mail questionnaires to trappers requesting information on trapping activity and furbearer abundance and we received 19 responses. Results have not been analyzed.

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

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

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

Work Accomplished During the Project Segment Period: We sealed 145 pelts (26 marten, 67 beavers, 33 land otters, and 19 wolverines) during the report period. Lynx hunting and trapping seasons were closed during 1991-92 because of low numbers of animals and no lynx were trapped as a non-target species. Fur export reports provided minimum catch data on furbearers not requiring sealing as follows: 4 weasels, 1 muskrat, 13 coyotes, and 39 mink.

Progress Towards Meeting Objectives: Population objectives have not been established for furbearer species. Lynx and beaver censuses were conducted in small study areas and may be expanded to estimate densities subunitwide in the future.

Harvest monitoring from sealing and reports from trappers found all furbearers except lynx available in harvestable numbers; populations were stable. The lynx population declined during the late 1980s and has not started to increase over large areas.

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: Twenty-eight trappers submitted pelts for sealing. Nineteen trappers harvested otters, and 16 trappers harvested beavers. We sealed 138 otters (70 males, 58 females, 10 unknown) and 79 beavers. Highest individual catches were 29 beavers and 54 otters. The average catch was 7.3 otters per trapper and 4.9 beavers per trapper. Trapper questionnaires were mailed to 26 individuals who trapped in Unit 8 and 20 reports were returned. Fifteen respondents reported trapping during the report period.

Progress Toward Meeting Objectives: Trapping effort and harvests increased from the low level recorded in 1990-91. The number of trappers who sealed furs increased from 17 in 1990-91 to 28 the following year. The number of otters sealed increased from 80 to 138, and the beaver harvest increased from 57 to 79.

Furbearer populations appear to be high, but objective means to assess trends have not been applied in Unit 8. At the present intensity, trapping is not a significant mortality factor in any furbearer species. Red foxes and beavers are particularly abundant. River otters are potentially susceptible to overharvest. This species should be given the highest priority in developing project objectives and for developing population trend techniques.

Project Location: Units 9 and 10 (45,500 mi^2)
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: We did not conduct surveys during this report period. We did an indirect survey to estimate furbearer population trends and relative abundance by sending questionnaires to selected trappers. They returned 27 of 60 (45%) questionnaires. Trappers reported most species populations were stable except for an increase in the lynx population in Subunit 9C. Information gathered from supplemental questions relative to effort emphasized that travel conditions (i.e., more snow than usual and stable low temperatures) were such that trappers using snowmachines and airplanes increased their effort, and trappers using ATVs and walking reduced their effort. Questions relating fur prices to effort indicated low prices for beaver, mink, red fox, and river otter caused some trappers to reduce their effort. Winter employment and travel plans also caused some trappers to reduce their usual effort.

We derived furbearer harvest information from sealing certificates. Preliminary harvest for Unit 9 from sealing certificates was as follows: beaver - 365; otter - 151; lynx - 25; and wolverine - 78. No furbearers were sealed in Unit 10. The Unit 9 furbearer harvest increased from the 1990-91 season. Beaver harvest increased 72%, otter increased 77%, lynx increased 66%, and wolverine remained stable. These increases could be attributed to a poor commercial fishing season the previous summer, and to relatively good weather and good snow conditions affording better access to traplines.

The red fox population in Subunit 9D experienced a rabies outbreak this past winter. Near Cold Bay several hostile foxes were killed that tested positive for rabies. No other cases of rabies on the Alaska Peninsula were documented this report period.

Progress Towards 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, efforts will probably not expand 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 a harvest increase, 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: Lynx seasons in Units 11 and 13 should be maintained. Careful monitoring of the lynx cycle will be necessary over the next two years. If lynx start to decline, it may be necessary to reduce season length. The lynx cycle appears much weaker than anticipated in Unit 13. Based upon the previous cycle the coming season should be among the peak harvest years.

We need more information on the Unit 13 wolverine population. Harvests have declined in recent years and population estimates for Unit 13 suggest numbers are lower than previously believed. Current harvest exceeds 10% of the extrapolated fall population estimate. Given the reproductive potential of wolverines, current harvest rates are too high for the population to increase. To reduce the trapping effort on productive females, the wolverine season was shortened by 25 days. In 1992-93 wolverine trapping will end on 31 January. We do not expect trapping pressure for marten, foxes, and lynx to increase appreciably in the upcoming year when fur prices are expected to be low.

Progress Towards Meeting Project Objectives: We sent questionnaires to 126 trappers and 68 (54%) responded. Fifteen of the respondents (22%) did not trap during the 1991-92 season. Low fur prices were the reasons for not trapping. Respondents who trapped averaged 10 years of experience, set 25 to 50 traps along trap lines that averaged 36 miles in length, and used either highway vehicles or snowmachines for transportation.

Trappers reported lower red fox numbers than last year. They also reported marten and lynx numbers were slightly higher than in the previous year while numbers of other furbearers were similar to last year.

Twenty-seven of the 28 aerial transects established to monitor lynx abundance and population trends were flown during March 1992. In Unit 13, 10 (53%) of the transects had lynx tracks. Five of the Unit 11 transects (55%) had lynx sign. The 1992 survey suggested a slight decline in lynx abundance compared to the previous year. We surveyed two ground transects by snowmachine during February and March. Lynx tracks were less numerous on these transects than the previous year but lynx harvests occurred on these trails before the surveys.

In Unit 13, 27 trappers took 37 wolverines (25 males, 12 females). In Unit 11, 4 trappers took 10 wolverines (6 males, 4 females). There were 124 lynx taken by 32 trappers in Unit 13 while 12 trappers took 108 lynx in Unit 11. This was the second year lynx trapping occurred in these units after a 3-year closure. Twelve trappers took 22 otters (14 males, 7 females, 1 unknown) in Unit 13. One female otter was trapped in Unit 11. In Unit 13, 27 trappers took 176 beavers while in Unit 11 one trapper took 4 beavers.

The number of wolverines trapped has declined in recent years and the success rate for wolverine trappers remained low. All wolverines taken in Unit 11 were trapped or snared while 8 animals (22%) were ground shot in Unit 13 and the rest trapped or snared.

Despite indications of a population increase, the Unit 13 lynx harvest increased only 23% over the previous year's take of 101 lynx. The low snowshoe hare cycle may be limiting the lynx population during the current 10-year cycle. The lynx harvest in Unit 11 was 3 times higher than last year and hare numbers appeared higher in Unit 11.

Otter harvests in Unit 13 fluctuated between a high of 68 in 1983 and a low of 5 in 1990. The fluctuation in the otter take was probably not because of changes in the otter population but rather because of trapper interest and fur value. Otter harvests in Unit 11 are low and have changed little over the past decade.

The Unit 13 beaver harvest increased 74% from the previous year's take of 101. In Unit 11, beaver harvests fluctuated in recent years between a high of 59 in 1985 and the current low of 4. In both units the catch per trapper has been fairly constant but the number of beaver trappers fluctuated among years.

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: During the 1991-92 trapping season we sealed 204 beavers, 25 otters, 15 lynx, and 8 wolverines from Unit 14. Thirteen beavers were also taken under nuisance beaver permits, and one otter was accidentally killed in a fish trap. We collected minimum harvest data for fur species other than those which must be sealed by a voluntary reporting form included with the trapper questionnaire. Responses indicated at least 53 coyotes, 33 marten, 72 mink, 216 muskrats, 30 red foxes, 9 red squirrels, and 38 weasels were taken in Unit 14.

During the past year, 228 beavers, 17 otters, 21 wolverines, and 1 lynx were sealed from Unit 16. Trapper questionnaire respondents reported taking 58 coyotes, 176 marten, 36 mink, 27 muskrats, 33 red foxes, 135 squirrels, and 144 weasels in Unit 16.

Fifty-four trappers (68%) responded to the ADF&G trapper questionnaire. Of these, 40 trapped during 1991-92. When asked to categorize the number of animals on their trapline during the season, most respondents called lynx and wolverine "scarce;" and coyote, mink, fox, squirrel, otter, and weasel abundance "common." Beaver were "common" in Unit 14 and "abundant" in Unit 16. Marten were "scarce" in Unit 14, but "common" in Unit 16. Many trappers commented that low fur prices and family commitments limited trapping efforts. Of the survey respondents who trapped during 1991-92, 87% returned the voluntary response form detailing their total season fur harvest.

Muskrat pushup count areas on Palmer Hay Flats State Game Refuge were ground-surveyed during 19-31 March. The number of pushups increased 12%, but numbers declined in the 4 count areas nearest the Glenn Highway construction.

We established furbearer track count trend lines and surveyed by snowmachine in 6 locations in Subunits 14A, 14B, and 16A. One trapper assisted with data collection in the Knik River and indicated interest in future surveys. We are considering additional sites for trend lines, and hope to survey each line at least twice a winter. We established harvest objectives, based on long-term average harvests for the fur species (land otter, lynx, beaver, and wolverine) requiring sealing. For Unit 14, the annual harvest objectives are: land otters, 20; lynx, 12 (when the season is open); wolverines, 10; and beavers, 250. For Unit 16, the annual harvest objectives are: land otters, 40; lynx, 5; wolverines, 20; and beavers, 350. ADF&G will begin sealing marten from these units in 1992 and harvest objectives will be established for marten.

Progress Towards Meeting Project Objectives: Developing direct, measurable furbearer population objectives is beyond our resources, though track count transects can

provide an index of population fluctuations. These data could be correlated with harvest data. Given several years' data, we may be able to develop indirect population objectives based on indices of furbearer abundance. It is important to continue track transects and obtain data on track accumulation rates. Because most area trappers trap recreationally, the investment to obtain data on population numbers and dynamics may be unwarranted.

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: We sealed pelts and informally interviewed trappers during sealing. We sent trapper questionnaires to 70 local trappers. Trappers returned 32 questionnaires which we are analyzing. Population surveys were not conducted.

Progress Towards Meeting Project Objectives: Preliminary beaver harvest data suggest a harvest of 1,098 beavers, comparable to last year's harvest of 1,049 beavers. Trappers reported beavers were abundant in the unit. Low prices and poor weather conditions were reasons for the low harvest.

Red foxes continued to increase in number. Preliminary data suggest that 111 otters were harvested, a lower harvest than last year. Trappers reported abundant otters, but most were caught in beaver sets because few trappers targeted otters. Six lynx, all from Subunit 17B, were harvested. Lynx numbers continue to be very low, but trappers indicated lynx tracks were more common this year. Data were not available on the number of marten taken. Trappers reported stable marten numbers along the Nushagak, Mulchatna, and Wood river drainages. Preliminary data indicate 42 wolverines harvested during 1991-92, comparable to last year's harvest and the 5-year average. Trappers reported high wolverine numbers.

Segment Period Project Costs:

	Personnel	Operating	Total
Planned	63.2	15.4	78.6
Actual	63.2	10.2	73.4
Difference	0.0	5.2	5.2

Submitted by:

John N. Trent
Management Coordinator

Project Title: **Interior Furbearer Population and Habitat Management**

Project Location: Unit 12 and Subunit 20E

Project Objectives and Activities:

Unit 12: Unit 12 objectives are to: 1) maintain accurate annual furbearer harvest records based on sealing documents; and 2) develop more specific population objectives for furbearers. Activities include: 1) sealing furs as they are harvested and presented for sealing and analyzing harvest patterns; and 2) conducting trapper questionnaire surveys and interviews to determine the status of various furbearer populations.

Subunit 20E Objectives: Strategic management goals for furbearers in Subunit 20E found in the Greater Alaska Furbearer Plan (1976). Alaska Wildlife Management Plans are to: 1) provide for an optimal furbearer harvest; 2) provide the greatest opportunity to hunt and trap furbearers; and 3) maintain viable populations of all furbearers.

Specific population objectives have not been fully developed for furbearers in Subunit 20E. We suggest the following as interim objectives: 1) maintain accurate annual harvest records based on sealing documents; and 2) develop more specific population objectives for furbearers by 1992.

Subunit 20E activities include: 1) sealing furs as they are harvested and presented for sealing and analyze harvest patterns; and 2) conducting trapper questionnaire surveys and interviews to determine the status of various furbearer populations.

Work Accomplished During the Project Segment Period:

Unit 12: Sealing certificates received in the Tok area office through 15 June 1992, indicated that Unit 12 harvests of furbearers during the 1991-92 season were: 4 land otters, 40 beavers, 26 wolverines, and 176 lynx. Harvests of all species were higher compared with the 1990-91 season. Kitten lynx composed 5% of the harvest compared with 17% last year.

Discussions with local trappers indicated that lynx, fox, beaver, mink, and ermine were common in Unit 12 during FY92. Low market prices continue to negatively affect trapper effort for these species. Marten numbers continued to decrease, probably because of high numbers of predators and a declining microtine population. Wolverines are uncommon and stable except in the mountainous country in southern Unit 12. In that area wolverine numbers appear to be increasing. Otters are uncommon and stable. Snowshoe hare populations appear to be declining.

Subunit 20E: The following furbearers were sealed this report period: 1 land otter, 9 beavers, 9 wolverines, and 114 lynx. Harvest was comparable with last year except for lynx, which increased by 63%. The percent kittens in the harvest was 15, down from 40% during 1990-91. The lynx population is abundant and still growing.

Based on discussions with local trappers and on incidental observations by ADF&G personnel, the marten population apparently declined, the wolverine population was low and stable, foxes were common, coyotes were low but increasing, and otters were uncommon in Subunit 20E during FY92.

Progress Toward Meeting Project Objectives: We kept accurate annual harvest records for species sealed. Data from lynx carcass collections, trapper questionnaires, and from incidental observations by ADF&G personnel provided adequate information about furbearer population trend and status. Although we reviewed data on other furbearer species, we did not establish any additional species-specific management objectives. The new target date for establishing these objectives is FY94.

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 permits to remove nuisance/problem beavers.
   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 that had 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. Establish species-specific management objectives by FY93.

Work Accomplished During the Project Segment Period: Sealing certificate data indicate that trappers harvested 692 beavers, 536 lynx, 44 wolverines, and 35 land otters from this area during 1991-92. The subunit harvests of these four species for Subunit 20A was 31 beavers, 185 lynx, 15 wolverines, and 6 land otters; Subunit 20B was 455 beavers, 131 lynx, 8 wolverines, and 20 land otters; Subunit 20C was 186 beavers, 164 lynx, 16 wolverines, and 8 land otters; Subunit 20F was 16 beavers, 47 lynx, 2 wolverines, and 1 land otter; and Subunit 25C was 4 beavers, 9 lynx, 3 wolverines, and no land otters. We assigned Uniform Coding Unit codes to sealing data to monitor distribution of harvest and distributed supplies to 11 nondepartment fursealers.

In 1990-91, trappers either exported or sold to furbuyers 5,438 furs from Unit 20, 68% of which were marten. This represented a decrease from 1989-90 when 6,071 furs were exported or sold, 77% of which were marten. We summarized trapper questionnaire responses from the 1990-91 season and reviewed the mailing list for 1991-92. In April 1992, we sent a questionnaire to 117 trappers; responses will be evaluated during the next report period.

We conducted a beaver cache survey on 2 October 1991 along the lower Chena River. The density of 0.6 colonies/km (22 colonies/40 km observed) exceeded our management objective for < 0.5 colonies/km, so we reduced beaver densities by conducting a registration trapping season and issuing permits to trappers to take nuisance beavers in problem areas. Eight registration trapping permittees took 31 beavers during the 1 December-31 January season.

During 1991 we issued 25 permits to take nuisance beavers and 26 were taken. We received at least 31 complaints from the public and DOT&PF regarding nuisance beavers. In 1991-92, only Subunits 20B and 20C had harvests of more than 50 beavers and both subunits had < 20% kits in the harvest. In Subunit 20B, 10% (47/455) of the beavers taken were kits, and in Subunit 20C, 3% (6/86) were kits.

We collected lynx carcasses from Subunits 20A (64), 20B (56), 20C (15), and 20F (2) in 1991-92. This represented 28% (139/527) of the harvest from these four subunits and 38% (120/316) of the harvest from Subunits 20A and 20B combined. We also obtained two carcasses with no subunit identified. From 1988 through 1992, the percentage of kittens in the Subunit 20A/20B collection decreased from 30% (13/43), to 20% (18/91), to 16% (8/51), to 17% (20/120). Even though the percentage of kittens decreased, the collection's age structure remained very young each year; we collected few lynx ≥ 3 years old in the first 3 years of collecting. We will analyze the ages of the 1991-92 collection during the

next report period. As in the previous 3 years, we collected carcasses from more male (78) than female (61) lynx.

Progress Toward Meeting Project Objectives: In areas with beaver densities exceeding our management objective or that have human-beaver conflicts, we have adequately reduced beaver densities by implementing a registration trapping season, issuing permits to remove problem beavers, working with DOT&PF to clear dammed culverts, and advising the public about ways to avoid beaver damage. We met our management objective to keep the percentage of beaver kits in the harvest at < 20% in subunits with a harvest of more than 50 beavers. The percentage of kits in these subunits has not exceeded 10%, indicating relatively light harvests.

We also met our management objective to harvest lynx with a tracking harvest strategy. Since 1984-85, the length of the lynx trapping/hunting seasons changed four times in response to changes in lynx abundance. The 1992-93 season will also be extended by 1 month as we progress through an apparent high plateau, compared with a peak, in the lynx cycle. Data from lynx carcass collections, trapper questionnaires, and sealing certificates provide adequate information about lynx population status to continue managing with the tracking harvest strategy. During the next report period, we plan to finalize a report on the carcass collection, including information about using pelt measurements to index recruitment.

We continue to meet the management objective of maintaining furbearer seasons during periods of peak pelt primeness, but have not established any additional species-specific management objectives. There is an increasing interest in information on wolverines, and I recommend changing objective 6 to read: "Summarize data on the status of wolverines in the Fairbanks area."

Project Location: Subunit 20D

Project Objectives and Activities:

Objectives

1. Monitor furbearer population trends and annual harvest of furbearers using sealing documents, fur acquisition reports, fur export reports, trapper questionnaires, and trapper interviews.
2. Monitor trends in abundance of furbearer prey species by establishing snowshoe hare and small mammal trend surveys.
3. Determine lynx reproductive status by purchasing and examining lynx carcasses and reproductive tracts.

Activities

1. Seal furs as they are harvested and presented for sealing and analyze harvest patterns.
2. Conduct trapper questionnaires and interviews as a basis for determining the status of various furbearer populations.
3. Purchase lynx carcasses from trappers and examine for reproductive status.
4. Conduct snowshoe hare track surveys and small mammal trapline surveys to monitor prey abundance.

Work Accomplished During the Project Segment Period: Pelts were sealed for beaver, lynx, otter, and wolverine trapped in Subunit 20D during the 1991-92 trapping season. Trappers harvested 36 beavers, 51 lynx, 3 otters, and 12 wolverines.

We mailed questionnaires to trappers in Subunit 20D and received 11 usable responses. We tabulated them to quantify furbearer abundance and population trends. We purchased 11 male and 14 female lynx carcasses from trappers for $10 per carcass. We necropsied carcasses, took measurements, and removed the uterus from females for examination. Results are not available on reproductive status of female lynx. We monitored small mammal abundance in three habitat types. Capture rates were 0.21 captures/trap night in mature spruce, 0.10 captures/trap night in fallow fields, and 0.03 captures/trap night in harvested barley fields.

Progress Toward Meeting Project Objectives: We accomplished management objectives during this report period by sealing furs of beavers, lynx, otters, and wolverines and by analyzing harvest patterns. We mailed questionnaires to trappers and analyzed results. Trends in prey abundance were monitored with small mammal trap lines, although no snowshoe hares transects were established. We purchased lynx carcasses, examined the females for reproductive status, and collected other data.

Project Location: Unit 19 and Subunits 21A and 21E

Project Objectives and Activities:

Objectives

1. Annually determine current status and population trends for each furbearer species and their primary prey species.
2. Assess trapper effort and distribution.
3. Obtain estimates of harvest for all furbearer species.

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 one active colony per 3.2 km of suitable waterway, as determined through periodic fall cache surveys.

Marten:

1. Obtain 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: We sent questionnaires to 102 trappers in Unit 19 to evaluate status and trends in populations, as well as numbers harvested. We have not yet tabulated results for the 1991-92 season. During mid-November, we conducted beaver cache counts in nine areas. We continued to collect marten carcasses. Fursealers sealed pelts during the trapping seasons. We analyzed harvest of beaver, river otter, lynx, and wolverine by evaluating sealing documents.

Because all sealing documents for the 1991-92 season have not yet been processed, we based the following data on the 1990-91 trapping season. The Unit 19 harvest was comprised of: 2,875 marten; 307 beavers; 191 mink; 98 red foxes; 51 wolverines; 40 weasels; 31 river otters; 20 muskrats; 16 lynx; and 10 coyotes. According to responses on the Unit 19 trapper questionnaire, coyotes were increasing but still scarce, lynx were stable but scarce, red foxes increased to abundant, marten increased to abundant, muskrats were stable but scarce, mink were stable at moderate populations, beavers increased to abundant, wolverines increased but were still scarce, and river otters were stable at moderate populations. Furbearer populations in Subunits 21A and 21E were mostly the same. At a mean market value of $54 a pelt, marten contributed almost three-fourths of the total value of all species taken in Unit 19.

During the 1991-92 trapping season, we collected 372 marten carcasses and evaluated sex and age ratios. The male:female ratio in the harvest was 1.18:1 and the young:adult female ratio was 2.17:1. Both these factors indicate a healthy and probably expanding marten population.

Progress Toward Meeting Project Objectives: We accomplished all objectives for furbearers during FY92. Sealing of furbearer pelts was done by several village sealing agents, traveling furbuyers, or efforts of ADF&G personnel. We will complete analyses of harvest and population trends for the 1991-92 season when all sealing certificates, acquisition and export reports, and trapper questionnaires are submitted. We collected and

evaluated 372 marten carcasses. We conducted beaver cache counts on nine survey areas in Subunit 19D.

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

Project Objective and Activities: The objective for the area is to manage a furbearer population that will sustain furbearers at levels able to provide for maximum consumptive and nonconsumptive use.

Furbearer activities include: 1) sealing furs as they are harvested and presented for sealing and analyze harvest patterns and 2) conducting trapper questionnaires and interviews to determine the status of various furbearer populations.

Work Accomplished During the Project Segment Period: Based on sealing certificates received in Galena through 25 June 1992, harvest of furbearers from Subunits 21B, 21C, and 21D combined were 228 beavers, 55 lynx, 13 otters, and 12 wolverines. Beaver harvests were similar to previous years and lynx numbers were greater, indicating that the population is near its 10-year peak. Most unit trappers set for lynx, otter, and wolverine incidentally to marten trapping. Low marten prices and poor snow conditions early in the season directly influenced trapping effort. Beavers and otters continue to be abundant.

Progress Toward 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 amount of effort trappers expend. These factors keep harvests low enough to meet objectives.

Project Location: Unit 24

Project Objective and Activities:

Objective

1. Manage a furbearer population that will sustain furbearers at levels high enough to provide for maximum consumptive and nonconsumptive use.

Activities

1. Seal furs as they are harvested and presented for sealing and analyze harvest patterns.
2. Conduct trapper questionnaires and interviews as a basis of determining the status of various furbearer populations.

Work Accomplished During the Project Segment Period: Sealing certificates in Galena indicate a harvest of 162 lynx, 135 beavers, 32 wolverines, and 1 otter. Lynx

numbers were greater indicating that the 10-year population peak is near. Most unit trappers set for lynx, otters, and wolverines incidentally to marten trapping. Low marten prices and poor snow conditions early in the season influenced trapping effort. Beavers and otters continue to be abundant in the southern portion of the unit.

Progress Toward Meeting Project Objectives: Fur prices, social activities, cultural backgrounds, and weather conditions all contribute to the amount of effort trappers expend. These factors keep harvests low enough to meet objectives.

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

Project Objectives and Activities:

Objectives

1. Determine the relative annual abundance of lynx, marten, snowshoe hares, and beavers by 1991.
2. Determine annual age and sex ratios of harvested lynx and marten by 1991.
3. Develop accurate estimates of annual furbearer harvest by 1991.
4. Identify trapper use patterns by 1991.
5. Determine marten habitat use and dispersal by 1992.
6. Determine lynx habitat use, movements, and density in relation to successional vegetation stages following wildfire (1991 through the lynx population peak).

Activities

1. Seal furs as they are harvested and presented for sealing and analyze harvest patterns.
2. Conduct trapper questionnaires and interviews as a basis for determining the status of various furbearer populations.

Work Accomplished During the Project Segment Period: Preliminary harvest data indicate that nearly all furbearer species reported on sealing records in the Fort Yukon area were harvested in Unit 25. Reported beaver harvest decreased from 172 in 1990-91 to 118 in 1991-92. Sixty-four of these beaver came from Subunit 25D. Reported lynx harvest of 612 was greater than the previous year's total of 464. Harvest from Subunit 25B (273) accounted for 45% of the total, while Subunit 25D (305) accounted for 50%. Kittens comprised 11% of the take in Subunit 25B and 10% in Subunit 25D; overall, kittens comprised 10.5% of the reported harvest. Reported otter harvest was very low with only six taken. The reported wolverine harvest of 51 was close to the previous year's total of 48. Males composed 67% of the harvest for which gender was indicated. Other activities included gathering information about specific traplines and proximity of traplines to wildfires, and discussing furbearer status and trapping issues with trappers.

Progress Toward 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, snowshoe hares, and beavers, as well as marten habitat use and dispersal were not met because of a vacant area biologist position in Fort Yukon from November 1990 to August 1991 and because funding was limited.

Segment Period Project Costs:

	Personnel	Operating	Total
Planned	94.9	4.0	98.9
Actual	94.9	4.8	99.7
Difference	0.0	-0.8	-0.8

Submitted by:

Kenton P. Taylor
Management Coordinator

Project Title: **Western Alaska Furbearer Survey and Inventory**

Project Location: Unit 18 (46,000 mi^2)
Yukon-Kuskokwim Delta

Project Objectives and Activities:

1. Maintain furbearer population at existing levels in Unit 18.
   a. Estimate abundance and use of selected furbearers in Unit 18.
   b. Provide support to the fur sealing program throughout Region 5.
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 sent trapper questionnaires to 200 active trappers in Unit 18, and asked about abundance and uses of furbearers. We prepared to complete beaver cache surveys during fall 1992.

This was the fourth year we sent public notices out to all villages informing hunters and trappers that all wolves, wolverines, beaver, otter, and lynx harvested need to be sealed. We also sent notices explaining the use of fur export permits and the importance of reporting all fur harvests. We contacted all fur sealers about the proper sealing of pelts and filling out of fur acquisition reports. Twenty-seven active fur sealers sealed furs in Unit 18 for the 1991-92 season, and a few also purchased furs.

Pelts were sealed in the ADF&G office in Bethel, as well as in villages when opportunity presented itself, usually incidental to public meetings, license vending, and/or issuing big game permits. Pelts from other units were often sealed as well. We coded and filled out fur sealing certificates to evaluate harvests for different drainages.

Progress Towards Meeting Project Objectives: Seventy-two trappers out of 200 contacted responded to the questionnaire (36% response rate). We asked trappers about furbearer trends and furbearer abundance, and we assigned an index value to each furbearer. According to trappers, all major furbearer species within Unit 18 were either stable or increasing, except for red fox. Another interesting finding was that coyotes were observed for the first time in Unit 18 during the 1990-91 season. All furbearer species were abundant except marten, lynx, wolf, ermine (weasel), and coyote.

Reported harvests of furbearers in Unit 18 during 1991-92 were 1,093 beavers; 220 foxes (red and white combined); 4,660 mink; 300 muskrats; 4 lynx; 308 otters; 367 marten; and 9 wolverines. These were reported on Acquisition Reports submitted by furbuyers, and on sealing certificates. Fur prices have been quite low since the 1989-90 trapping season, and furbearer harvests have declined significantly, especially for more common species

such as red fox and beaver. Many pelts were not sold this season, and are being held for better prices or were tanned and sold as tanned or domestically manufactured garments. Red fox trapping virtually stopped after December 1991, because of the low demand for this particular fur. Beaver harvests dropped 63% compared to the 1989-90 season. This harvest decrease was a result of price rather than abundance, as all furbuyers, trappers, and villagers indicated that beaver population size and range increased throughout the Yukon-Kuskokwim Delta.

Familiarity with fur sealing requirements increased, especially with public notices posted in all villages. However, we can not document improved compliance. There were significantly fewer pelts shipped out of Unit 18 this year without being sealed, especially for beaver and otter.

Project Location: Unit 22 (25,000 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 current 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: Data from furbearer sealing records indicated the following harvests:

Beaver - Five unit residents harvested 19 beaver: 13 from Subunit 22A; 2 from Subunit 22B; 3 from Subunit 22C; and the remaining one from Subunit 22D. Harvest chronology data are as follows: November - 6; January - 10; February - 1; and March - 2. A breakdown by method of take was as follows: trapping - 16, and snaring - 3.

Lynx - Five lynx (3 male and 2 female) were harvested by 4 residents of the unit using snowmachines for transportation. Four were taken from Subunit 22A, and one lynx came from Subunit 22E.

River Otter - Two otters were harvested during January and February from Subunit 22B. Unit residents took both animals using snowmachines for transportation.

Wolverine - Twenty-nine wolverines (18 male, 9 female, and 2 of unknown sex) were harvested by 16 hunter/trappers. All were unit residents. A breakdown of the harvest by subunit was: Subunit 22A - 11; Subunit 22B - 8; Subunit 22C - 6; Subunit 22D - 3; and 1 - location unknown. Chronology of the harvest was: October - 1; November - 2; December - 4; January - 3; February - 7; March - 7; and April - 5. Sixteen wolverines were ground shot, 12 were trapped, and 2 were snared. With the exception of a single wolverine taken via highway vehicle, all were taken by trappers using snowmachines.

A school program developed several years ago explaining the importance of wildlife management concepts, rules, and regulations was used throughout Unit 22 schools. We made several trips to villages to explain the need for regulations and harvest reporting as well as to assist license vendors. Much time was spent answering and making phone calls, writing articles, sending out mailings of regulation material, and supporting local Unit 22 license vendors.

Progress Towards Meeting Project Objectives: We suspect the magnitude of unreported harvest of some furbearers in Unit 22 is substantial. Efforts to inform the public of the importance of wildlife conservation and the need for regulations are showing results in some communities because the number of individuals purchasing licenses has increased. We need additional contact with local residents, primarily in the villages, if more complete compliance with regulations is to be realized. Because of inclement weather, we did not conduct beaver cache surveys this report period.

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

Project Objectives:

1. Maintain populations at existing levels in Unit 23.
   a. 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.
   b. Obtain sufficient data to develop one or more trend count areas for lynx by 1994.
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 gathered information about the population status of lynx, wolverines, river otters, and beavers from fur sealing

certificates, conversations with unit residents, and opportunistic observations of furbearers and their tracks during other wildlife surveys. We maintained furbearer sealing and furbuyer reporting programs to monitor harvest.

Wolverine - Based on opportunistic sightings by staff and residents, wolverine populations are considered stable. High overwinter mortality among ungulates in the Noatak and Kobuk river drainages in 1990 and 1991 should have led to favorable foraging conditions for wolverines. During the 1991-1992 regulatory year, 13 hunters sealed 27 wolverines (17 males, 9 females, and 1 unreported sex). Fourteen were shot and 11 trapped. During fall, nonunit residents harvested 3 wolverines.

Beaver - Beaver sign in the lower Noatak River drainage continued to be reported through 1991. The number of sightings has not increased or distribution of sightings changed in this drainage since 1986. Most residents of the Kobuk River drainage report beaver populations at "medium" levels, and either stable or increasing in abundance. Beaver population levels in the Selawik River drainage are high based on observations of beavers in marginal habitat. Four individuals sealed 36 beavers during 1991-1992.

Lynx - Lynx population levels remained extremely low during 1991-1992. Agency personnel and residents observed single sets of tracks in the Noatak, Kobuk and Selawik drainages. The snowshoe hare population is 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. We did not seal any lynx from Unit 23 in 1991-1992.

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

Red Fox - The limited information available on red fox suggests that populations were stable or decreasing in some areas. No rabies cases were reported this regulatory year.

River Otter - In 1991-92 three river otters were sealed. Harvested otters were from the upper Kobuk (1), Pah (1), and Noatak (1) river drainages. Hunters used either snowmachine or a combination of snowmachine and aircraft for transportation.

Progress Towards Meeting Project Objectives: ADF&G maintained its open communications with area trappers to assess trapper effort and distribution. ADF&G is developing a statewide trapper survey to collect local knowledge of furbearer population trends. Current furbearer populations appear capable of sustaining target harvest levels, with the exception of lynx. Lynx densities remained low. Observations of both hare and lynx tracks enabled staff to identify potentially suitable areas for trend counts 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. Variations in season dates are not based on biological considerations regarding furbearer management in Unit 23. Variations in seasons dates increase the complexity of regulations for those who both hunt and trap. We recommend adopting the same season dates for hunting and trapping furbearers in Unit 23. Efforts to simplify the furbearer hunting and trapping regulations and sealing requirements, and to explain to people the need for harvest information in wildlife management should remain a high priority.

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

Project Objectives:

1. Establish and maintain viable furbearer populations in Subunit 26A.
   a. Monitor harvest through the statewide sealing program.
   b. Conduct an in-depth review of information collected in the past to obtain 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 Subunit 26A. No harvest data are available for arctic foxes. Low fur prices resulted in few foxes being trapped.

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

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

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

Wolverine - Magoun (1984) estimated at least 821 wolverines in Subunit 26A. More recent estimates of population status is unavailable. We saw 12 wolverine during 26 hours of moose and wolf surveys conducted in the Colville River drainage from 24-27 April 1992. Two wolverines were sealed during 1991-92; both were ground shot. A snowmachine was used for transportation for one, and aircraft for the other. One was male and one was of unknown sex. One was taken in October and one in April. Many

more wolverines were harvested and not reported. Reliable data for unreported harvest are not available.

River Otter - Although river otters are found in Subunit 26A, their densities are very low. No river otters were reported harvested during 1991-92.

Progress Towards Meeting Project Objectives: It is difficult to determine whether current harvest levels are within sustained yield limits because little population and harvest information is available. Additional efforts are needed to assess furbearer population status and monitor harvest. Inventory of furbearer populations, other than wolves, presently remains a lower priority in Subunit 26A than inventory for other species. We are developing a village harvest monitoring program in cooperation with the North Slope Borough. To obtain better furbearer population information, ADF&G would need to hire an assistant area biologist to work on this project.

Segment Period Project Costs:

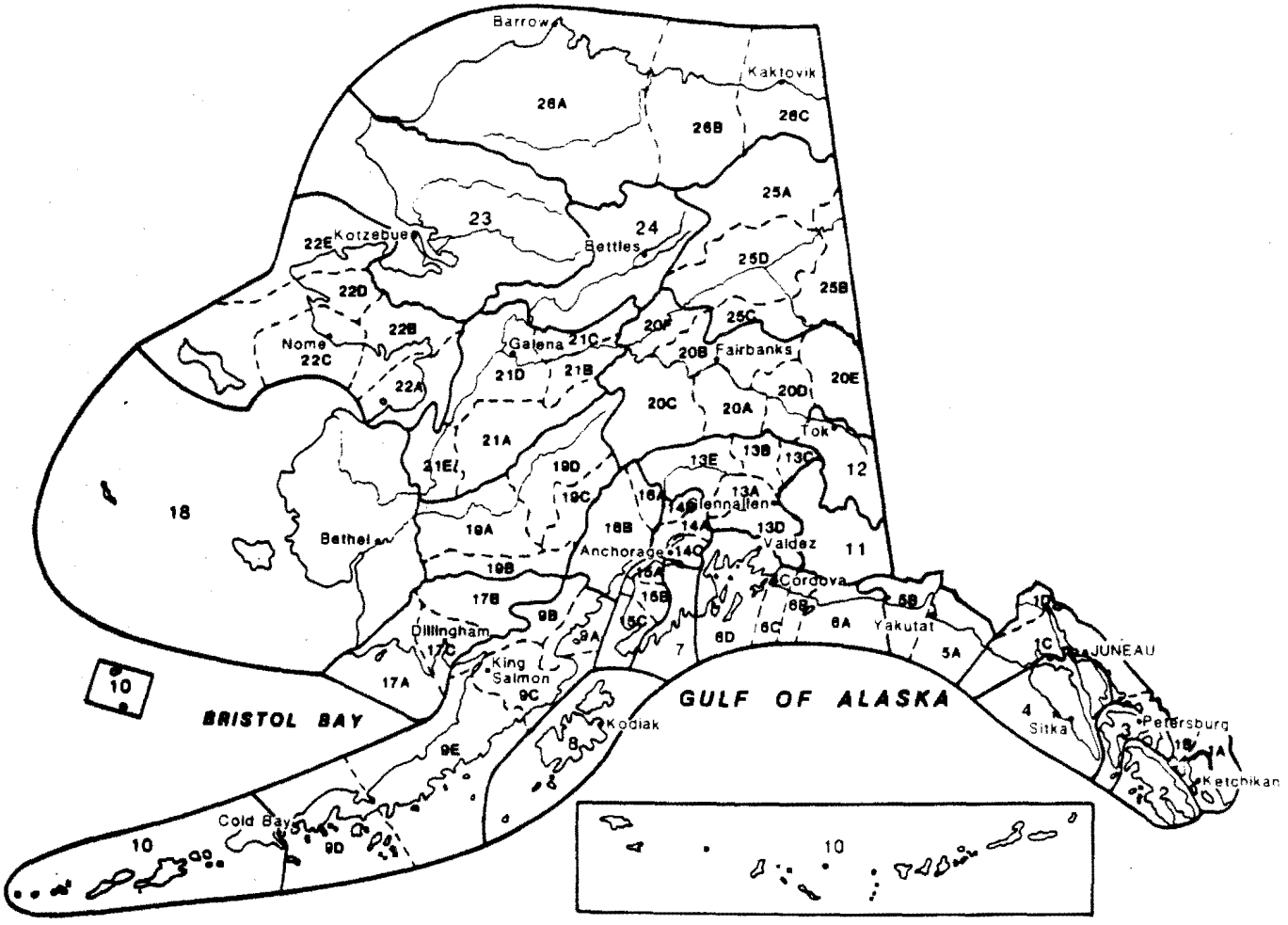
	Personnel	Operating	Total
Planned	22.5	8.9	31.4
Actual	22.5	5.1	27.6
Difference	0	-3.8	-3.8

Explanation: Lower harvests of furbearers resulted in less funds expended for paying appointed village fur sealers.

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.