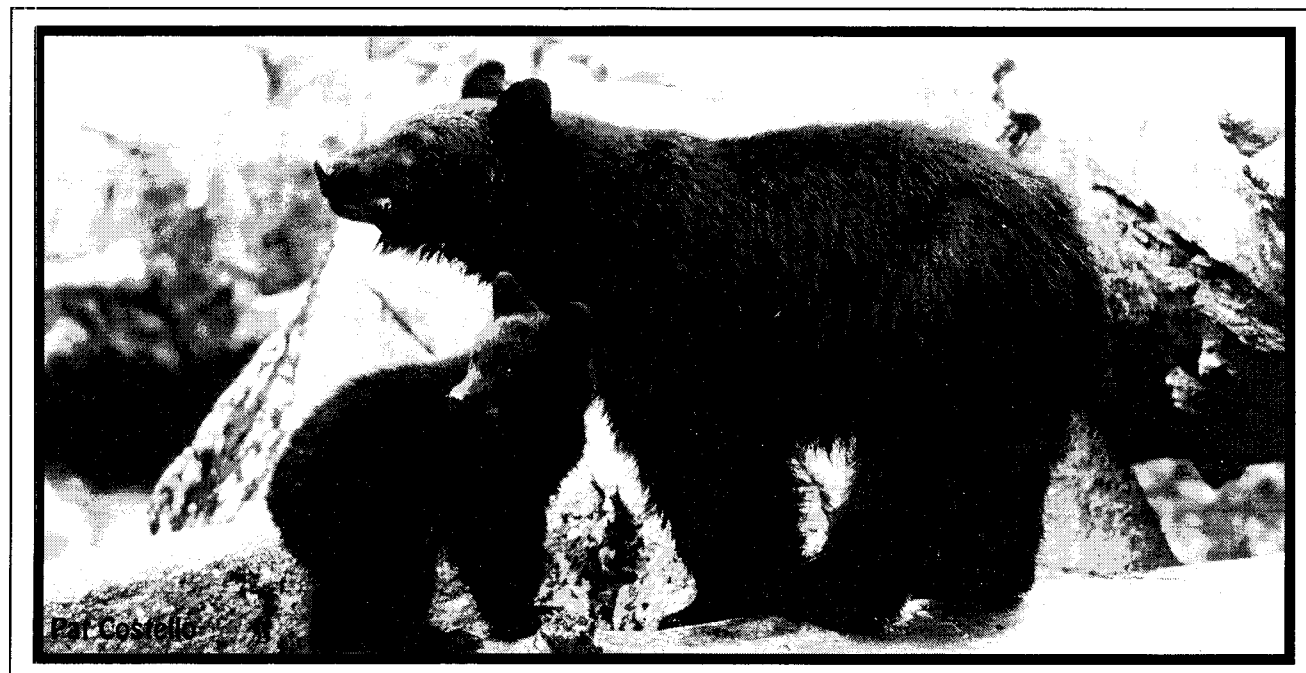


Alaska Department of Fish and Game
Division of Wildlife Conservation

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

BLACK BEAR

Mary U. Hicks, Editor



Grant W-24-2
Study 17.0
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**

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Project Title: Southeast Black Bear Population Management

Overview: Black bears are throughout the Southeast Alaska region (Units 1-5), except in Unit 4 (Admiralty, Baranof, Chichagof and associated islands). Harvests are low, compared with estimated populations; however, in some areas they are rapidly increasing.

Project Location: Subunit 1A (5,000 mi²)
Ketchikan area including mainland areas draining into Behm and Portland Canals

Unit 2 (3,900 mi²)
Prince of Wales Island and adjacent islands south of Sumner Strait and west of Kashevarof Passage and Clarence Strait

Project Objectives and Activities:

- . Maintain an average spring male skull size of at least 17.2 inches in Subunit 1A and an average spring male skull size of 19.1 inches or a regulatory year average of 18.8 inches for Unit 2.
- . Monitor the harvest and seal all black bears presented for sealing.

Work Accomplished During the Project Segment Period: Fifty and 209 black bears were reported harvested from Subunit 1A and Unit 2, respectively. Males composed 92% and 75% of the Subunit 1A and Unit 2 harvests, respectively. We measured skulls, determined sex, and pulled a tooth from most of the bears presented for sealing. We sent teeth from harvested bears to Matson's Montana lab for aging; we will send letters to successful hunters informing them of their bears' ages.

Progress Meeting Project Objectives: The Subunit 1A skull size objective was again met. Skulls from 37 males averaged 17.5 inches. Four female skulls taken from Subunit 1A averaged 15.9 inches. This was .6 inches below what we observed the previous season.

The average skull size for 99 males taken from Unit 2 during spring 1994 was 19.2 inches, .1 inches above our 19.1 inch objective. For the third time in 4 seasons, our Unit 2 male skull size objective was not met. At 18.6 inches, the 1993-94 average was .2 inches low. Skulls from 47 females harvested from Unit 2 during the 1993-94 regulatory season averaged 17.0 inches, .3 inches larger than what was observed last season.

During this reporting period Matson's Lab sectioned and aged nearly 1,000 black bear teeth from bears harvested from Subunit 1A and Unit 2 during 1984-1989. These data will be combined with existing age data and will be reported in our next black bear management report.

Project Location: Subunit 1B (3,000 mi²)
Southeast mainland from Cape Fanshaw to Lemesurier Point

Unit 3 (3,000 mi²)
Islands of the Petersburg and Wrangell area

Project Objectives: Maintain a mean skull size of at least 17.0 inches for males and a male to female ratio of 3:1 in the harvest.

Work Accomplished During the Project Segment Period: We sealed 245 bears from the two units. Four of these were nonsport kills. We collected anecdotal black bear information from hunters, biologists, Fish and Wildlife Protection officers, and other knowledgeable observers. When possible, we measured skulls and determined the sex of the harvested bear.

Progress Meeting Project Objectives: Thirteen and 228 black bears were killed in Subunit 1B and Unit 3, respectively. The male to female ratio was slightly over 3.5:1 and the average male skull size was 18.7 inches (n = 178), up slightly from last year. Project objectives were exceeded.

Nonresidents killed 136 bears, including 53 taken on guided hunts. Both of these values increased from 1992. The number of nonresident hunters continues to increase. The results of a hunter survey showed hunters averaged seeing 5 bears and passing up 2 before killing a bear. Hunters saw an average of 9 bears (n = 122) before killing one. Hunters passing up 1 or more bears saw an average of seven (n = 81). These data suggest hunters were slightly more discriminating than in the previous year and the black bear populations in Units 1B and Unit 3 remain high.

Project Location: Subunit 1C (7,600 mi²)
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:

- Maintain a mean skull size of at least 17.3 inches for males and a male to female harvest ratio of 3:1.
- Reduce by 50% the number of bear problems resulting from improper refuse handling and disposal.

Work Accomplished During the Project Segment Period: We collected harvest data through the mandatory sealing process. We measured skulls and determined sex of the harvested bear at the time of sealing. Harvest-related data and anecdotal information were collected at that time. We solicited additional information from hunters and other observers.

We continued educational and enforcement efforts aimed at reducing garbage availability and subsequent habituation of black bears to human foods. This was a cooperative effort between the Department and the City and Borough of Juneau.

Progress Meeting Project Objectives: Unit 1C black bear management objectives were met. Skull sizes for males averaged 17.9 inches, and males composed 94% of the hunter harvest. A low fall harvest (5males and 1female) was followed by a large spring harvest (41 males and 2 females). Human-bear conflicts were practically nonexistent for most of the year, and only 1 problem bear was captured during the period. Bear activity within urban areas near Juneau was low during 1993, possibly because bears remained at higher elevations than normal during the hot, dry summer. Berry crops were outstanding and fish runs tended to be poor, adding to the incentive for bears to be away from low lying areas. One young

male bear was killed by the Juneau Police Department as a DLP kill. Efforts to reduce the availability of garbage to bears should be continued.

Project Location: Subunit 1D (2,700 mi²)
Southeast mainland lying north of the latitude of Eldred Rock, excluding Sullivan Island and the drainages of Berners Bay

Project Objectives: Maintain a population capable of sustaining an annual harvest of at least 25 black bears.

Work Accomplished During the Project Segment Period: We collected harvest data through the mandatory sealing process. Staff also collected harvest-related data and anecdotal information at that time. We measured skulls at the time of sealing and determined the sex of the harvested bears when possible.

Progress Meeting Project Objectives: Black bear harvest in Subunit 1D fell short of the management objective. With sufficient hunter effort, there is no indication the population could not support a harvest of 25 bears. A total of 20 bears (14 males and 6 females) were taken compared to 28 in regulatory year 1992. Males continued to compose the majority of the harvest (70%). Average skull size for males was 17.3 inches.

Project Location: Unit 5 (6,200 mi²)
Cape Fairweather to Icy Bay, eastern Gulf of Alaska coast

Project Objectives and Activities:

- . Maintain a 3:1 male to female harvest ratio and a population capable of supporting an annual harvest of at least 20 bears.
- . Monitor the hunt and seal all black bears harvested and presented for sealing.

Work Accomplished During the Project Segment Period: Black bears were sealed in Yakutat, Juneau, and Anchorage.

Progress Meeting Project Objectives: The male to female ratio in the harvest was 4:1, higher than the objective. Only 10 bears were killed, well below average. There is no indication the population is not capable of supporting a harvest of at least 20 bears. Two blue ("glacier") male bears were taken in the spring of 1994.

Segment Period Project Costs:

	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	45.4	7.3	52.7
Actual	45.4	7.3	52.7
Difference	0	0	0

Submitted by:

Bruce Dinneford
Management Coordinator

Project Title: Southcentral Black Bear Population Management

Project Location: Unit 6 (10,150 mi²)
Prince William Sound and north Gulf Coast

Project Objectives: Maintain a black bear population that will sustain a 3-year average annual harvest of 200 bears comprised of at least 75% males and a minimum average male skull size of 17 inches.

Work Accomplished During the Project Segment Period: Thirteen black bears (9 males and 4 females) were harvested during fall 1993. Preliminary harvest data indicated 103 (83 males, 20 females) were taken during spring 1994. Final harvest numbers for spring will be available during fall 1994.

Progress Meeting Project Objectives: The preliminary harvest (116) was less than the average harvest for the previous 3 years (231). However, the percentage of males in the take (79%) was greater than the average for the previous 3 years (76%). The population can sustain the current harvest.

Project Location: Units 7 and 15 (8,400 mi²)
Kenai Peninsula

Project Objectives: Maintain a black bear population that will sustain a 3-year average annual harvest of 250 bears comprised of no more than 40% females.

Work Accomplished During the Project Segment Period: Preliminary harvest reports indicated harvest was within management objectives. Final harvest data will be available during fall 1994. The 1993 fall harvest was below average due to poor fall weather. We sealed 75 bears and certificates showed 28% were females. Numbers of bears sealed in Peninsula offices indicated the majority of fall bears continue to be harvested incidental to moose hunting.

The spring bear harvest was normal. Hunters harvested at least 110 bears (1 DLP) and approximately 25% were females.

Progress Meeting Project Objectives: During the spring 1994 Board of Game meeting, the Board reduced the bag limit to 2 bears. However, not more than 1 bear may be taken during the period 1 January to 30 June, and 1 bear may be taken between 1 July and 31 December. These regulations were necessary to reduce increased harvests as well as changes in habitat associated with logging and land development. Logging associated with bark beetle infestations will be the major factor affecting black bear habitat on the Kenai Peninsula. Approximately 5000 to 6000 acres were logged during this reporting period, and more than 6000 acres will be cut during the next regulatory year.

Project Location: Unit 11 (12,800 mi²)
Wrangell Mountains

Project Objectives: Maintain a black bear population that is largely unaffected by human harvest and fluctuates as dictated by available habitat, climate conditions and natural mortality factors.

Work Accomplished During the Project Segment Period: We monitored the black bear harvest by sealing the hides and skulls of all bears killed. At the time of sealing, we interviewed hunters to determine hunting methods, means, and effort.

Hunters took 17 black bears and 1 was killed in defense of life and property in Unit 11 during the 1993-94 season. The hunter harvest exceeded the previous year and the 5-year (1988-92) average of 12 bears. Harvest data for the 1993-94 season are preliminary; sealing certificates for spring 1994 were still being processed. The harvest included 13 (76%) males and 4 (24%) females. Five (45%) of the 11 bears taken during the spring were shot over bait. Local residents took 4 bears, nonlocal Alaska residents killed 10 animals, and nonresidents harvested 3 bears.

Progress Meeting Project Objectives: The black bear harvest in Unit 11 increased slightly this year, but the unitwide harvest has remained low over the past 11 years. Unit 11 has some good black bear habitat, and frequent sightings suggested bears were abundant. The low harvest reflected a lack of hunting pressure rather than low bear numbers. The proportion of males in the harvest exceeded that of females. A harvest comprised of more males than females has less effect on overall bear numbers. Because guidelines are being met, we propose no changes in season dates and bag limits.

Project Location: Unit 13 (23,400 mi²)
Nelchina Basin

Project Objectives: Maintain a black bear population that is largely unaffected by human harvest; annual harvest should average less than 125 bears.

Work Accomplished During the Project Segment Period: We monitored the black bear harvest by sealing the hides and skulls of all bears killed. We interviewed hunters at the time of sealing to determine hunting methods, means, success, and effort.

Preliminary harvest data for the 1993-94 hunting season indicated 57 black bears were taken by hunters. The 5-year (1988-92) average harvest was 76 bears. Harvest data for the entire 1993-94 season were preliminary as the hunting season is open year-round, and sealing certificates were still being processed. There were 39 bears (74% males) taken during the fall of 1993 and 18 (72% males) taken to date in spring 1994. Males composed 74% of the overall harvest. During the fall season, unit residents took 3 of 39 bears (8%), other Alaska residents killed 25 (64%), and nonresidents 11 (28%) bears. During the fall, highway vehicles were the most popular method of transport (41%); next were aircraft (31%). During the spring hunt, highway vehicles were also the most important (50%) transportation method, followed by 3/4 wheelers (28%).

Skull size and age data were not available for this report. Subunits 13D and 13E remained the most important black bear hunting locations, accounting for 44% and 32% of the unitwide take. Guided hunting increased this year with 8 bears taken on guided hunts.

Progress Meeting Project Objectives: The preliminary harvest of 57 black bears was 30% below the previous year's take of 81. The reason for the decline is probably a decline in hunter effort. One indication of a decline was that we issued only 14 bait stations permits in 1994, compared to 30 the previous year. Overall, black bear harvest in Unit 13 is within sustainable levels, as black bears are considered relatively abundant in forested areas. Subunits 13D and 13E have the highest black bear numbers because of the extensive areas of forest habitat. Preliminary composition data for the 1993-94 season indicated the proportion of males in the harvest was well above the 60% management guideline for Unit 13. No changes in season dates and bag limits were proposed as current guidelines are being met.

Project Location: Unit 14 (6,600 mi²)
Upper Cook Inlet

Project Objectives: The population objective is to maintain a black bear population of a size that is largely unaffected by human harvest. The human-use objective is to provide liberal opportunities to hunt black bears with annual average harvests of less than 80 bears.

Work Accomplished During the Project Segment Period: During this reporting period, we sealed a minimum of 50 black bears for all of Unit 14. Twenty-seven bears were killed in Subunit 14A, 10 in 14B, and 13 in 14C. Sex was identified for 49 bears; 67% were males. In 14A, ADF&G killed 2 nuisance bears, and 1 bear was killed illegally.

A minimum of 159 hunters registered at least 1 black bear bait station for the spring season in Subunit 14A; 24 persons registered bait stations in Subunit 14B. A minimum of 13 bears (including 11 males) were reported killed over bait.

Progress Meeting Project Objectives: Black bear harvest declined from 82 bears taken the previous year, probably due to poor spring hunting weather. Although the 1993-94 harvest was the lowest annual harvest in 6 years, this was the first time the 3-year average harvest (74 bears) in Unit 14 has reached the objective level (less than 80 bears). We estimate Unit 14 contains 750-1350 black bears; therefore, the 3-year average harvest was less than 10% of the low estimate (750). The percentage of males (69%) in the harvest, especially in Subunit 14A, has increased in recent years. With long seasons and spring baiting opportunity, both the population and human-use objectives were being met.

Project Location: Unit 16 (12,300 mi²)
West side of Cook Inlet

Project Objectives: Maintain a black bear population that is largely unaffected by human harvest. The human-use objective is to provide liberal opportunities to hunt black bears with an average annual harvest of less than 160 bears, including fewer than 12 females from Subunit 16A and fewer than 50 females from Subunit 16B

Work Accomplished During the Project Segment Period: During this period, we sealed 106 black bears for Unit 16. This included 46 bears taken in Subunit 16A and 60 animals in Subunit 16B. Sex was identified for 105 bears; 75% were males. In Subunit 16A, 1 bear was killed in defense of life and property. A minimum of 47 hunters registered at least 1 baiting station in Subunit 16A; 42 baiting stations were registered in Subunit 16B. Forty-seven percent of the harvest was taken over bait. This included 36 males and 13 females.

Progress Meeting Project Objectives: Status of the bear population in Unit 16 was moderate to high density with an uncertain trend; harvest was below sustainable levels. Black bear harvest in Unit 16 was similar to the previous year (109 bears), but well below the harvest of 150 bears during 1991-92. The 3-year average annual harvest was 122 bears.

We met the human-use objectives for average annual harvest and female harvest. However, there may have been significant unreported harvest, primarily during summer, as many local residents reported problems with black bears at their fish camps. Some people admitted killing bears for meat but claimed they were unable to have them sealed.

Project Location: Unit 17 (18,800 mi²)
Northern Bristol Bay

Project Objectives: Maintain existing populations of black bears with a sex and age structure that will sustain a harvest comprised of at least 60% males.

Work Accomplished During the Project Segment Period: Hunters were not required to report or seal black bears harvested in Unit 17. Consequently, we have no way of assessing the number of bears killed, the sex or age composition of the harvest, or the distribution of harvest.

Progress Meeting Project Objectives: No objective data were available on the population density of black bears in the Unit. Incidental observations during moose and caribou surveys, and anecdotal reports by local residents suggest the black bear population along upper Nushagak River drainages is declining. Little is known about black bear populations in other portions of the unit.

We have little data on harvests because there are no reporting or sealing requirements for black bears harvested in Unit 17. During this reporting period 1 black bear was sealed (male).

During their spring 1994 meeting, the Board of Game passed a proposal restricting black bear season to 1 August to 31 May, beginning the 1994/95 season. The bag limit was reduced from 3 to 2 bears for residents and 1 bear for nonresidents. The Board also instituted sealing requirements for bears taken in Unit 17.

Segment Period Project Costs:

	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	7.2	1.3	8.5
Actual	7.2	1.3	8.5
Difference	0	0	0

Submitted by:

Jeff Hughes
Survey-Inventory Coordinator

Project Title: Region III Black Bear Population and Habitat Management

Project Location: Units 12 and 20

UNIT 12

Project Objectives and Activities:

- . Manage for a black bear population capable of maintaining a sustainable average harvest of at least 30 bears, of which at least 55% are males.

- . Seal bears; analyze harvest data.

Work Accomplished During the Project Segment Period: In Unit 12 as of 13 June 1994, the FY94 reported black bear harvest was 22 black bears (16 males, 5 females, and 1 unknown). The previous 5- year average annual harvest was 14. Males represented 76% of the known FY94 harvest. Fifty-five percent (12) of the bears were harvested during the spring and 58% (7) of these were taken over bait. Meat was salvaged from 72% of the bears.

Progress Meeting Project Objectives: The project objectives are currently being met. The estimated number of black bears in Unit 12 is between 700 and 1000. An annual harvest of 30 bears would be well below sustainable and would have no effect on the population. However, I recommend we change the objective so that it is more achievable if the Unit 12 black bear population declines: Manage for a harvest of black bears that maintains 55% or more males in the combined harvests of the most recent 3 years.

Subunits 20A, 20B, 20C, AND 20F

Project Objectives and Activities:

1. Subunit 20A: Manage for a harvest of black bears that maintains 55% or more males in the combined harvests of the most recent 3 years.
 - a. Seal bear hides and skull, age teeth, analyze data.

2. Subunit 20B: Manage for a sustained annual harvest of ≤ 150 black bears, of which at least 55% are males.

Seal bear hides and skull, age teeth, analyze data.

 - b. Determine the sustainable harvest for Subunit 20B based on harvest data and research findings.
 - c. Monitor black bear baiting with registration permits.
 - d. Cooperate with the research project to study the population dynamics of black bears on the Tanana Flats.

3. Subunits 20C and 20F: Manage for a harvest of black bears that maintains 50% or more males in the combined harvests from both subunits from the most recent 3 years.
 - a. Seal bear hides and skull, age teeth, analyze data.
4. Minimize human-bear conflicts by providing information and assistance to the public and agencies.

Work Accomplished During the Project Segment Period: Preliminary counts of sealing certificates indicate that in fall 1993 and spring 1994, we sealed 200 black bears harvested in Subunits 20A (41), 20B (111), 20C (16), and 20F (32). We sent teeth to Matson's Laboratory for age determination but do not yet have results for bears taken in spring 1994.

We also issued 620 registration permits to hunt black bears over bait in spring 1994. We issued at least 284 (46%) of the permits to military personnel. We gave registering hunters leaflets (1) encouraging them to hunt males rather than females, (2) summarizing baiting regulations, and (3) listing some commonly asked questions and their answers. They also received a wallet-sized card, illustrating the difference between black and grizzly bears.

In fall 1993, we sent a questionnaire to 579 hunters that registered to bait black bears in spring 1993, and the response rate was very high (82%, 457/559). Respondents included half military (50%) and nearly half civilian (44%). Most (89%) of the military respondents were residents. Ten percent (47/456) of the respondents did not set up a bait station, 65% (294/456) set up 1 station, and 25% (115/456) set up 2 stations. The most common reason for hunting black bears in 1993 was for the meat (28%) or hide (26%). Other reasons frequently given included wanting to kill their first bear (19%) or wanting a large bear (14%). Only 24% (109) respondents reported they killed a bear at their station in spring 1993. Twenty percent (21/103) of the successful hunters took 2 or 3 bears.

Our new regulation requiring hunters to leave evidence of sex on bear hides until sealing has worked well to provide us accurate sex ratios in the harvest. In Subunit 20A, 61% (83/135) of the black bears harvested during the last 3 years combined have been males. In Subunit 20B, 68% (76/111) of the bears harvested in 1993-94 were males. In Subunits 20C and 20F combined, 70% (103/147) of the bears harvested during the last 3 years have been males.

Nine black bears are currently radiocollared as part of a research project to study the population dynamics of bears on the Tanana Flats. In late March 1994, we located dens of these hibernating bears, immobilized the bears inside, and weighed, measured, and changed collars on them. One of these 9 bears had died. The remaining 8 bears were heavier and in better condition this spring than last year, which indicates weather and forage last summer were favorable for bears. One 16 year-old female that weighed less than 100 pounds last spring weaned her 2-year-olds last year, and this winter had nearly regained her normal weight of 150 pounds (137 lbs) and produced 3 cubs as well. One female that lost a yearling last summer did not produce cubs this year. A nine-year-old female produced her first litter of cubs. Another 9-year-old female that had produced a litter in 1991 but was alone last year

also had cubs this year. The remaining 4 collared bears include two 3-year-old females, one 3-year-old male, and one 6 or 7-year-old male.

Progress Meeting Objectives: In Subunit 20A, the 1991-92 through 1993-94 harvest of 135 bears included 61% (83) males; therefore, we met our objective to maintain at least 55% males in the 3-year harvest.

In Subunit 20B, the 1993-94 harvest included 111 bears, 68% (76) of which were males. This met our objectives for annual harvest (≤ 150) and percentage of males (at least 55%) in the harvest.

The current registration permit system for black bear baiters allows us to monitor the potential number of bait stations that will be set up in an area. However, unlike the previous few years, this year we did not require someone hunting over another hunter's bait station to also register. This means that we do not have an accurate count of the potential number of hunters hunting over bait.

In Subunit 20C and 20F combined, 70% (103/147) of the harvest during the last 3 years has been males, which meets our objective to maintain at least 50% males in the 3-year harvest.

We are meeting our objective to provide information and assistance to the public to minimize human-bear conflicts by responding to complaints and working with the public and agencies to properly dispose of garbage.

I recommend we revert to analyzing and presenting harvest data for bears on a calendar year rather than a regulatory year. Mean age of the harvest is not useful if presented on a regulatory year because 2 cohorts are combined (i.e., a 4-year old in fall 1993 is a different cohort than a 4-year old in spring 1994). Because bears are typically only out of their dens for about 5 months, it does not seem appropriate to split that time in half for data analysis. We will be reanalyzing data, based on a calendar year.

I also recommend we again consider requiring harvest report cards for black bear hunters, especially for units where sealing is not required. With the recent listing of black bears on Appendix II of the Convention for International Trade of Endangered Species of Flora and Fauna (CITES) because of their look-alike status, I believe we should be documenting harvest when possible, just as we do for other big game species.

During the next reporting period, we will analyze harvest and research data to review our harvest and management objectives. We will summarize this data for a paper or poster to be presented at the International Bear Conference in summer 1995. We will be paying particular attention to data from Subunit 20B, where harvest and hunting pressure remain high.

Funding for the Subunit 20A black bear research project has been sporadic and somewhat unpredictable. We have gained valuable information regarding age of first reproduction from

this research. This data should be analyzed and used to model sustainable harvest levels for Interior populations. Plans for future research will be discussed as we complete our analysis.

Subunit 20D

Project Objectives And Activities:

- Manage for a harvest not to exceed 15 black bears south of the Tanana River and 15 black bears north of the Tanana River. Reevaluate harvest goals when estimates of black bear density are available.
- Seal bears and analyze harvest data.

Work Accomplished During the Project Segment Period: The preliminary reported harvest was 22 black bears during the 1993-94 regulatory year. Hunters took 10 bears (5 males, 4 females, and 1 unknown) south of the Tanana River. Hunters harvested 12 bears (6 males and 6 females) north of the Tanana River.

Progress Meeting Project Objectives: Management objectives were met during this reporting period. Harvest did not exceed objectives. We sealed harvested bears and analyzed harvest.

Subunit 20E

Project Objectives And Activities:

- Manage for a black bear population capable of sustaining annual harvests of at least the current annual average of 14 bears/year
- Seal bears and analyze harvest data

Work Accomplished During the Project Segment Period: The Subunit 20E reported black bear harvest during FY94 was 5 black bears (3 males and 2 females), below the 5-year average harvest of 10 bears. Four (80%) were taken during the fall period. Males represented 60% of the harvest. Meat was salvaged from all 5 bears.

Progress Meeting Project Objectives: Black bear hunting pressure in Subunit 20E is normally light. Annual harvests below the project objective are more indicative of hunting pressure than the trend of the subunit's black bear population. The black bear population can sustain a harvest of 14 bears annually, which is indicated by the number of incidental sightings of black bears in the subunit and the average percentage of male in the harvest (61% average last 3 years). However, I recommend we change the objective so that it is more achievable if the Subunit 20E black bear population declines in the future: manage for a

harvest of black bears that maintains 55% or more males in the combined harvests of the most recent 3 years.

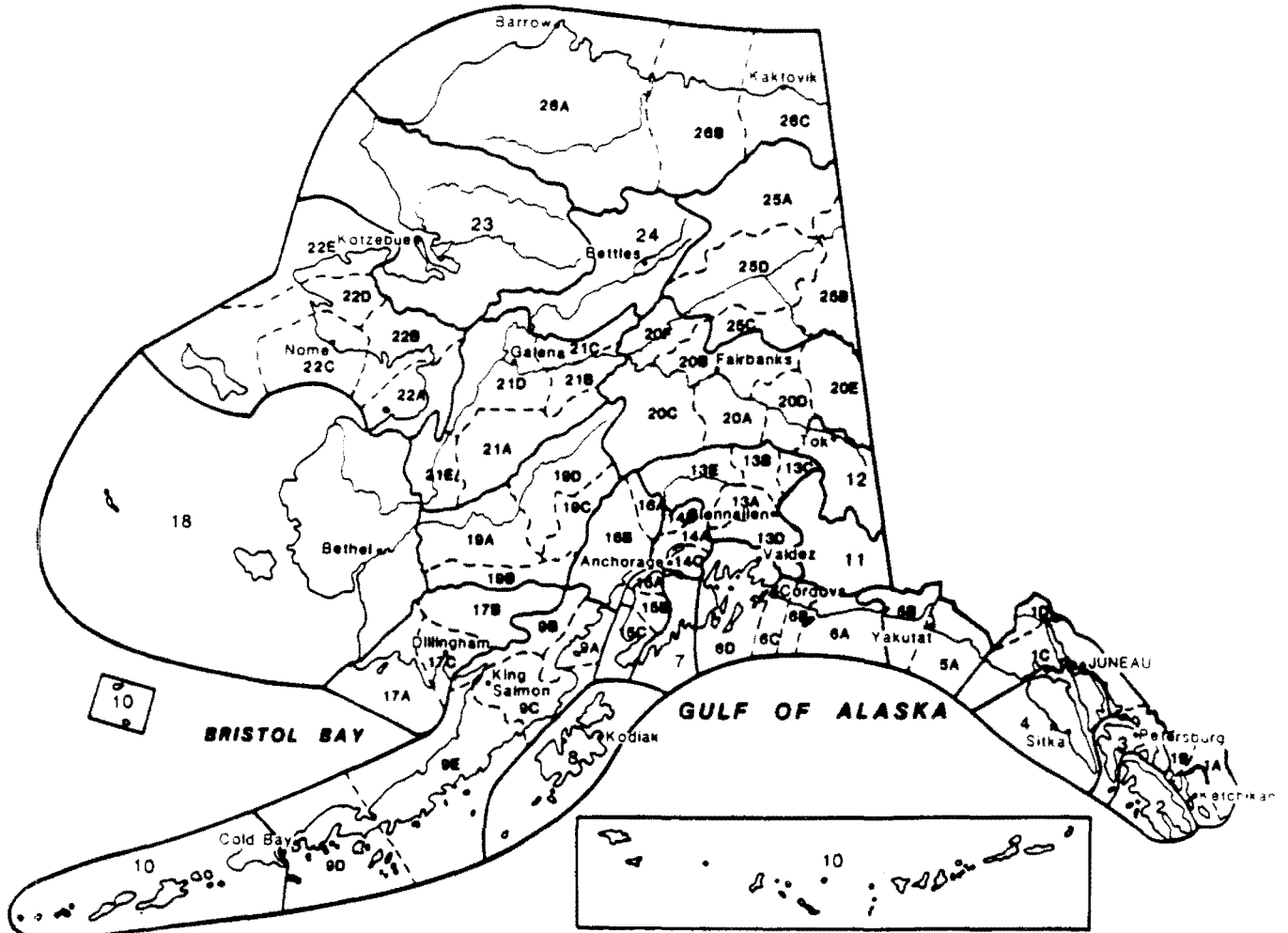
Segment Period Project Costs:

	<u>Personnel</u>	<u>Operating</u>	<u>Total</u>
Planned	23.5	2.0	25.5
Actual	23.7	2.2	25.9
Difference	-0.2	-0.2	-0.4

Submitted by:

Kenton P. Taylor
Management 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 area and the number of paid hunters in the state. Each state receives 5% of the revenues collected each year, the lowest. The 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 responsible hunters. Seventy-five percent of the funds for this project are from Federal Aid.



formula based on geographic the number hunting li-ers in the Alaska re-of the rev-lected each maximum al-Alaska Depart-