

ALASKA DEPARTMENT OF FISH AND GAME

JUNEAU, ALASKA

STATE OF ALASKA
Bill Sheffield, Governor

DEPARTMENT OF FISH AND GAME
Don W. Collinsworth, Commissioner

DIVISION OF GAME
W. Lewis Pamplin, Jr., Director
Robert A. Hinman, Deputy Director

ANNUAL REPORT OF
SURVEY-INVENTORY ACTIVITIES

PART I. BISON

Edited and Compiled by
Alma Seward, Publications Technician

Volume XV

Federal Aid in Wildlife Restoration

Project W-22-3, Job 9.0

Persons intending to cite this material should obtain prior permission from the author(s) and/or the Alaska Department of Fish and Game. Because most reports deal with preliminary results of continuing studies, conclusions are tentative and **should** be identified as such. Due credit would be appreciated.

(Printed November 1984)

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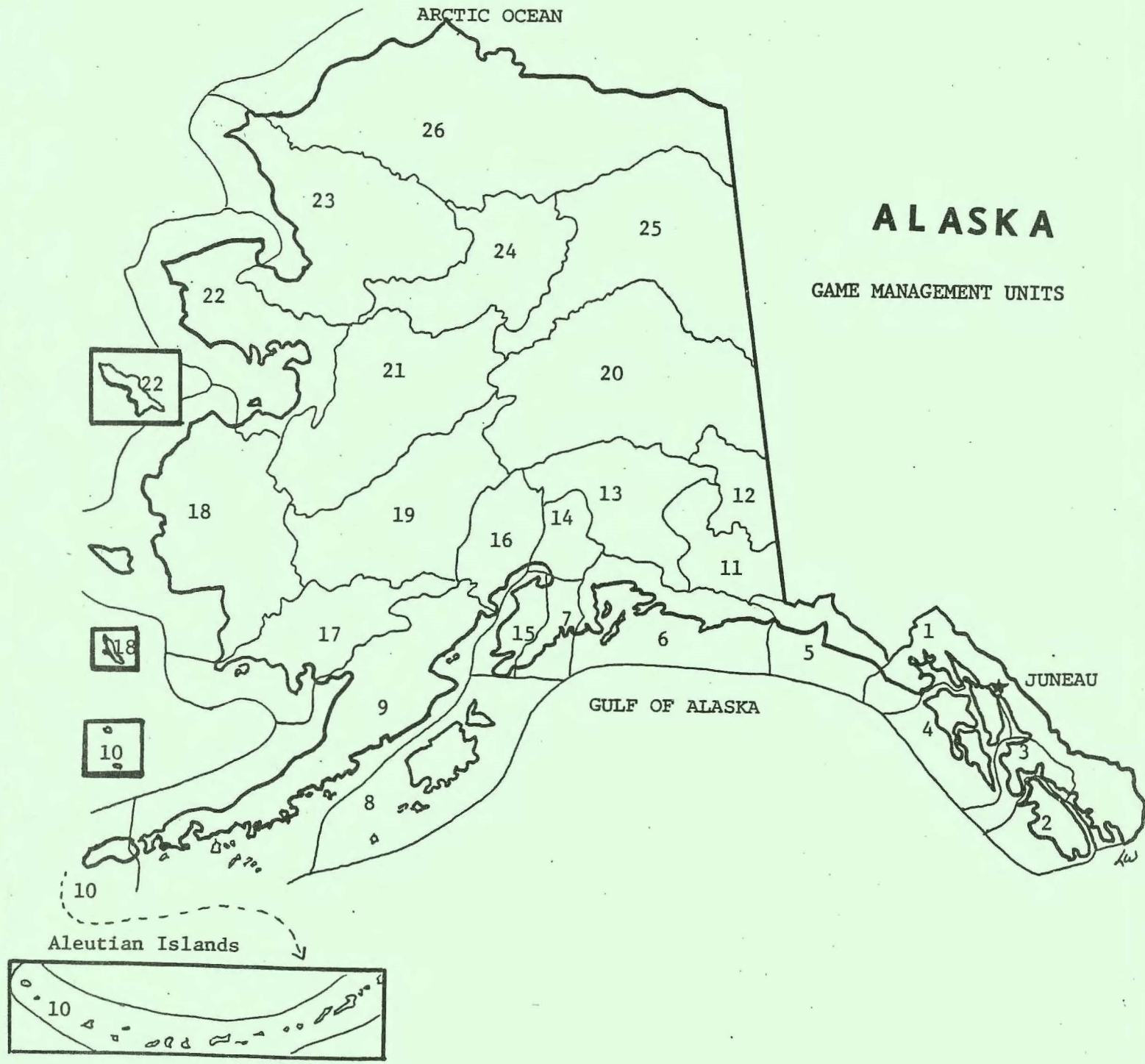
CONTENTS

Game Management Unit Map..... ii
Statewide Harvest and Population Status.....iii
Game Management Unit/Herd
GMU 11 - Chitina River..... 1
GMU 11 - Copper River..... 2
GMU 19C and 19D - South Fork Kuskokwim River..... 3
GMU 20A and 20D - Delta Junction Area..... 5

ARCTIC OCEAN

ALASKA

GAME MANAGEMENT UNITS



Statewide Harvest and Population Status

Wild bison herds are found in 3 Game Management Units in Alaska. During 1983-84, populations were stable (Copper River, Chitina, and Delta herds) or increasing (Farewell herd).

Hunter harvest totalled 86 bison, largely from the Delta herd.

<u>Herd</u>	<u>Unit</u>	<u>Population</u>	<u>Harvest</u>
Copper River	11	74	7
Chitina	11	46	4
Farewell	19	154	8
Delta	20	300	67

Robert A. Hinman
Deputy Director

BISON
SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNIT: 11

GEOGRAPHICAL DESCRIPTION: Chitina River

PERIOD COVERED: 1 July 1983-30 June 1984

Season and Bag Limit

See Hunting Regulation No. 24

Population Status and Trend

An aerial survey was conducted on 21 June and 46 bison were counted in the vicinity of Bear Island. The population appears stable, even though the number observed was less than the previous year (55).

Population Composition

The composition of 46 bison included 40 adults and yearlings and 6 calves (13%).

Mortality

Permittees killed 4 bison (3 adult bulls and 1 adult cow) during the 1983 hunting season. Twelve permits were issued but only 8 permittees hunted. All successful hunters utilized aircraft for transportation.

Management Summary and Recommendations

The current population exceeds the population guideline of 30 bison established in the Chitina Basin Management Plan. The present level of harvest should be maintained until range conditions can be evaluated. If range conditions indicate that a higher number of overwintering bison can be sustained, then the management plan should be reexamined to accommodate an increase in herd size. Range conditions are expected to improve through a reduction in the number of horses that also utilize the area.

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SUBMITTED BY:

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Game Biologist III

Leland P. Glenn
Survey-Inventory Coordinator

BISON

SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNIT: 11

GEOGRAPHICAL DESCRIPTION: Copper River

PERIOD COVERED: 1 July 1983-30 June 1984

Season and Bag Limit

See Hunting Regulation No. 24

Population Status and Trend

Seventy-four bison were counted on July 8, 1983 up from last year's count of 63, and similar to the 1981 count of 75. The herd appears stable.

Population Composition

Bison classified during the 8 July count included 59 adults and 15 calves (20%).

Mortality

Five bulls and 2 cows were killed during the hunting season. Fifty permits were issued to hunt bison and 30 permittees reported hunting for a success rate of 23%. Successful hunters averaged 2.4 days afield while unsuccessful hunters averaged 4.5 days afield. Aircraft was the most popular method of transport (57%).

During March, an adult cow was found dead at the base of a bluff along the Copper River. Necropsy revealed the bison was in good condition and died from injuries sustained during a fall. The moist clay soil found on the bluffs apparently creates unstable footing.

Management Summary and Recommendations

The Copper River Bison Herd Management Plan calls for 60 overwintering bison. Because of good calf production and survival, a registration permit hunt was conducted this year. The herd is currently near the management goal.

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BISON

SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNIT: 19C and 19D

GEOGRAPHICAL DESCRIPTION: South Fork Kuskokwim River

PERIOD COVERED: 1 July 1983-30 June 1984

Seasons and Bag Limits

See Hunting Regulations No. 24.

Population Status and Trend

Surveys conducted during this report period indicated that a minimum of 154 bison composed the Farewell Herd, but it is likely that additional bison were present. Based on the previous year's survey and observed 1983 calf production, the estimated herd size after the 1983 hunting season was 160-175 animals.

Recruitment was approximately 10%, a decrease from the average annual rate of 21%, indicating a decline in rate of herd growth.

Population Composition

Composition surveys were conducted in March, June, and August 1983. Results of the most complete survey (August) revealed a population of 138 adults and 16 calves (10% calves in the herd). This level of calf production is the 2nd lowest recorded for the Farewell Herd.

Mortality

Hunting is the principal mortality factor affecting the Farewell Herd. Twenty drawing hunt permits for the taking of bison (either sex) were issued for the period 1 September-10 October. Thirteen permittees hunted, and 5 bulls and 3 cows were taken. Five bison were taken within the Bear Creek burn, and 3 from the Post and Tatina Rivers.

Management Summary and Recommendations

The Farewell Bison Herd continued to increase, although at a slower rate than previously. The population goal for this herd is 250-350 animals, depending upon the maintenance of early seral stages within the Bear Creek burn. Consequently, restrictive

hunting seasons should be maintained, but as the herd increases, hunter access into the burn and along the South Fork should be developed to facilitate larger harvests.

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BISON

SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNIT: 20A and 20D

GEOGRAPHICAL DESCRIPTION: Delta Junction Area

PERIOD COVERED: 1 July 1983-30 June 1984

Season and Bag Limit

See Hunting Regulations No. 24.

Population Status and Trend

A precalving population objective of 275 bison is specified in the Delta Bison Management Plan. In 1982 and 1983, the precalving population estimates for the herd were 325 and 355, respectively. By midsummer 1983, the herd had increased to approximately 400 bison. The 1984 precalving population is estimated to be approximately 300, still above the population objective.

Population Composition

A composition count was conducted from the ground on 28 October 1983. Results of this survey (N = 173) revealed a herd composed of 22% bulls, 39% cows, 16% yearlings, and 22% calves.

Mortality

Known mortality between March 1983 and April 1984 was 94 bison (Table 1). The largest source of mortality resulted from sport hunting during the 21 September-31 March season. Seventy-five drawing hunt permittees harvested 67 bison.

Range and Habitat

Prescribed fire plans for improving 300 acres of bison and moose habitat on the summer range and 1,000 acres on the Bison Range were not implemented because of moist forest fuel. These prescribed burns are scheduled for 1984 or 1985 if weather conditions permit.

Habitat improvement continued on the Bison Range. Three hundred fifty acres were cleared in 1983 and 90 acres in 1984. Approximately 600 acres have been cleared to date, 360 of which have been planted with a combination of annual and perennial forage. In April 1984, 300 acres of perennial forage were fertilized. Additional improvements consisted of drilling a well and installing 2, 700-gallon stock tanks. Most of the herd utilized the Bison Range from late August until the best forage was consumed, a period of approximately 3 weeks.

Management Summary and Recommendations

The Delta Bison Management Plan expires in 1985. Public input should be solicited and a draft plan prepared so that the new plan can take effect in 1986.

The recommended harvest of 55 bison in 1984 should reduce the herd to the desired level of 275 animals.

Higher quality, more abundant forage is needed on the summer range where habitat conditions have deteriorated, and additional forage should be planted on the Bison Range. This will result in both areas being used for longer periods by the bison, thereby reducing crop depredations.

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Table 1. Known mortality of Delta Bison Herd, March 1983-April 1984.

Mortality source	Bull	Cow	Yearling	Calf	Unknown	Total
Hunting	24 ^a	36	6	1	0	67
Alleged defense of life and property	0	1	2	1	0	4
Mortar fire	1	3	0	1	0	5
Incidental to hunt ^b	1	4	0	0	1	6
Poaching	1	0	0	0	0	1
Road kills	1	1	3	1	0	6
Other ^c	0	2	1	2	0	5
Totals	28	47	12	6	1	94

^a Includes 3 bulls taken by permittees holding cow permits.

^b Wounding loss and overlimit take.

^c 1 cow probable capture mortality, 1 cow unknown, 1 calf caught in wolf snare, 1 calf probably killed by wolves, and 1 yearling unknown trauma.