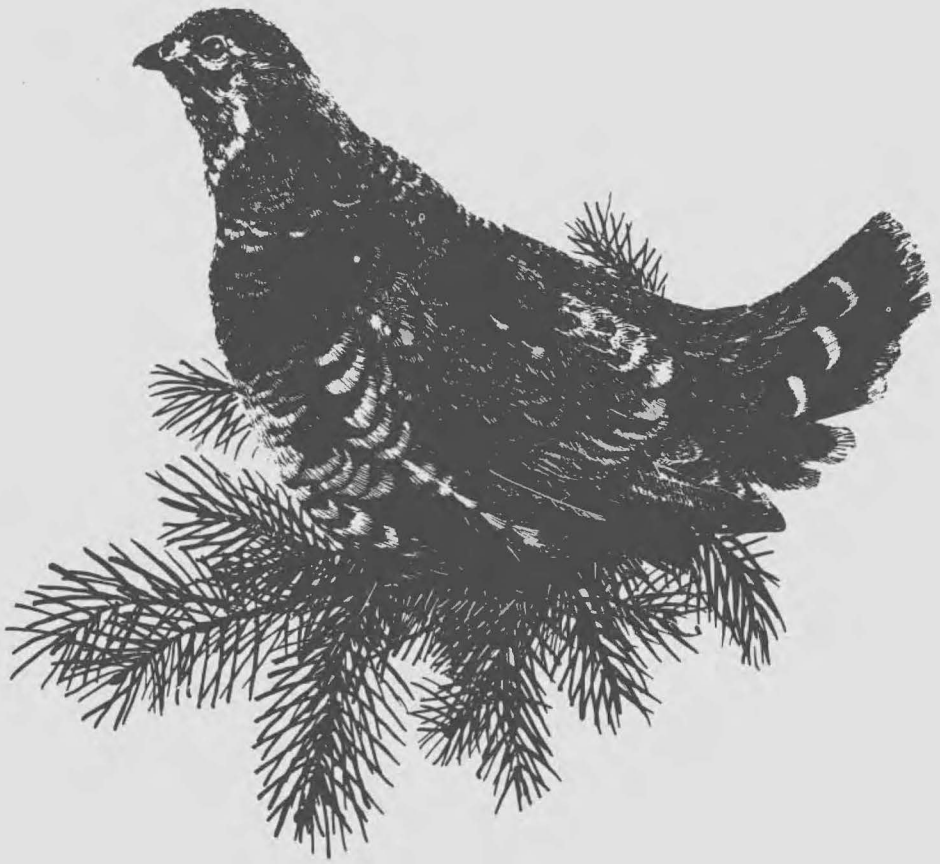
Alaska Department of Fish and Game
Division of Game
Federal Aid in Wildlife Restoration
Annual Report of Survey—Inventory Activities

SMALL GAME/UPLAND GAME



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SMALL GAME

SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNIT: 18

GEOGRAPHICAL DESCRIPTION: Yukon-Kuskokwim Delta

PERIOD COVERED: 1 July 1986-30 June 1987

Season and Bag Limit

See Hunting Regulation No. 27.

Population Status and Trend

The status of small game populations on the Yukon-Kuskokwim Delta ranged from fair to moderate during the reporting period. The summer of 1986 was cool and rainy, and these factors resulted in reduced productivity; however, the relatively mild weather during the subsequent winter facilitated overwinter survival. The coast of the Y-K Delta received heavier snowfall during 1986-87 than the prior year, although interior regions of the Delta received less. Red fox densities, which were very high, probably exerted much pressure on small game populations already depressed by a bad flood year (1985) and several successive cool and rainy summers.

Local hunters reported that the number of Arctic hares, which are patchily distributed on upland tundra in coastal regions, were stable in the vicinity of Kotlik. Catches of up to 3 Arctic hares per day were reported during February 1987; however, residents of Emmonak (30 miles to the south) were concerned about the scarcity of Arctic hares near their village. U. S. Fish and Wildlife Service (USFWS) researchers near old Chevak in the spring of 1987 trapped Arctic hares in fox sets; this was an unusual development, indicating high numbers of this species. Arctic hare numbers may have declined near Bethel, although reports were few.

Snowshoe hares commonly found in riparian habitats along the Yukon and Kuskokwim Rivers and their tributaries should be approximately half-way recovered from a 1982 population "crash". Snowshoe hare sign is apparently increasing on the Yukon Delta near Kotlik. Their numbers, however, remain depressed along the Kuskokwim River. Flooding along the Kuskokwim River during the spring of 1985 reduced their already low numbers. Although flooding did not occur during the spring of 1986, red fox predation rates were high along the Kuskokwim River. Excessive fox predation on already low snowshoe hare

stocks may have limited recovery or further reduced their numbers. Hunters and trappers continued to report little hare activity along the Kuskokwim River during 1986-87.

Spruce and ruffed grouse, also found in riparian habitats, were more common in lowland areas along the Yukon River in Unit 18 during fall 1986, compared with observations made in 1985. Neither species had apparently recovered to 1984 levels. Spruce grouse were reported to be common along the Kuskokwim River below Lower Kalskag during the fall of 1986. We received few other reports of spruce or ruffed grouse along the Kuskokwim River, although ruffed grouse were reported drumming along the Gweek River in the spring of 1987. Although there was no lowland flooding in either 1986 or 1987, the summer of 1986 was cool and wet; these factors apparently hindered production in these species and delayed population recovery.

Willow ptarmigan are widely distributed on the Y-K Delta and are among the most important small game species. Productivity of willow ptarmigan is dependent upon favorable summer weather, and it is adversely affected by wet conditions. Productivity was only moderate in coastal regions of the Y-K Delta during 1986 because of a preponderance of rainy weather. Significant numbers of young willow ptarmigan have been observed in drier summers during past years near USFWS field camps at Old Chevak and Kanagiak. Only a few such broods were reported in August 1986.

Willow ptarmigan characteristically make unusually long east-west migrations across the Y-K Delta. Low to average numbers of ptarmigan passed through Bethel on their autumn (late August-October 1986) west-east migration (i.e., from low tundra to alpine willow habitats). The number of ptarmigan observed peaked in late September and early October, but the migration was attenuated with some flights continuing into November.

Large flocks of ptarmigan were reported in riparian willow areas near Kotlik on the Yukon River during February. Willow ptarmigan flocks increased through the winter along the Salmon River in the Kilbuck Mountains east of Bethel and then disappeared in early March. The magnitude of the corresponding east-west spring migration of ptarmigan appeared average; the migration occurred from mid- to late March 1987. The spring harvest of ptarmigan was concentrated around the middle of March, and it took place along the melting snow line. Ptarmigan were heavily hunted while they remained in riparian willow areas near Bethel.

Willow ptarmigan breeding occurs both along the coast and in the very large expanse of interior tundra between the Yukon and Kuskokwim Rivers. Weather conditions differ considerably

between these two regions. The interior tundra is ordinarily warmer and drier. If the coastal population experiences reproductive failure because of weather, the interior population may be more successful.

We had no reports of rock ptarmigan during the year. These birds are occasionally found on talus and scree slopes in the limited mountainous areas of the Y-K Delta such as Kusilvak and the Askinuks.

Mortality

Weather appears to be the principal factor affecting small game populations in Unit 18. Grouse and hare populations have not recovered completely from lowland flooding that occurred in 1985. The summers of 1985 and 1986 were cool and wet, and grouse production was hindered. The red fox population in Unit 18 has remained high during 1986-87, and predator pressure on depressed small game stocks may delay recovery. The winters of 1985-86 and 1986-87, however, have been relatively mild; these conditions have facilitated the overwinter survival of small game. Ptarmigan hunting usually takes place on the Delta from November through April, although a few of them are taken during early fall. Most hunting access is provided by snowmachine, and snow cover determines the frequency of that access. Harvest levels were generally satisfactory to most hunters during the past season. Hunting mortality appears to only significantly affect small game populations near towns and villages in Unit 18.

Management Summary and Recommendations

Weather and spring flooding are the principal factors affecting the population status of small game species in Unit 18. Red fox populations, however, are currently very high in the unit, and predation may have a significant effect on small game populations as well. Until foxes decline, recovery of small game populations from detrimental natural occurrences (e.g., adverse weather) may be retarded. We do not believe that hunting is a significant factor affecting small game populations in Unit 18, and we suggest no regulatory changes.

PREPARED BY:

Sam Patten
Game Biologist III

SUBMITTED BY:

Steven Machida
Survey-Inventory Coordinator

SMALL GAME

SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNIT: 22

GEOGRAPHICAL DESCRIPTION: Seward Peninsula

PERIOD COVERED: 1 July 1986-30 June 1987

Season and Bag Limit

See Hunting Regulations No. 27.

Population Status and Trend

Excluding waterfowl, Unit 22 supports the following 4 species of small game: willow ptarmigan, rock ptarmigan, snowshoe hare, and Arctic hare.

Although ptarmigan densities in most major drainages of Subunit 22A remain extremely low, local residents in the northern portion of the subunit reported slight increases in numbers observed over the past 5 years. In contrast to the low densities reported in Subunit 22A, ptarmigan remained abundant for the second consecutive year in all drainages of Subunits 22B, 22C, 22D, and 22E. Flocks estimated at more than 1,000 birds were commonly observed throughout the area, particularly during the months of March and April.

Consistent with a trend observed during the past 4 years, the number of both species of hares remains low or nonexistent throughout the unit. Indicators, however, point toward a slight increase in some drainages of Subunits 22B, 22D, and 22E.

Population Composition

Surveys to determine composition of small game populations in Unit 22 were not conducted during the reporting period.

Mortality

Quantified data concerning the effects of natural and/or human-induced mortality on the unit's small game populations were not collected during the reporting year.

Management Summary and Recommendations

Because annual surveys of small game populations were not conducted in the Unit 22, the only information available concerning the density and distribution of small game species was obtained from the observations of biologists, hunters, and trappers in the field and from responses to a trapper questionnaire. Obtaining accurate harvest information for these species continues to be a high priority.

Although quantified data are nonexistent, I believe that major changes in small game densities in Unit 22 are most likely related to weather, predation, or other natural cyclic phenomena. Hunting pressure definitely has some effect on small game populations in areas adjacent to villages; however, the unitwide impacts are minimal. No changes in small game seasons and bag limits are recommended at this time.

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SMALL GAME

SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNIT: 23

GEOGRAPHICAL DESCRIPTION: Kotzebue Sound

PERIOD COVERED: 1 July 1986-30 June 1987

Season and Bag Limit

See Hunting Regulations No. 27.

Population Status and Trend

No information was collected on grouse populations during this reporting period. Historically, grouse have been less widespread and abundant than ptarmigan in Unit 23.

The snowshoe hare population apparently has begun to recover from its cyclic low. Snowshoe hare tracks were seen much more frequently throughout Unit 23 during the 1986-87 winter than during the previous one. Reports from the public corroborated our field observations. No information is available on Arctic hare populations.

Reports from the public indicate that ptarmigan numbers have increased in most areas of Unit 23. Likewise, ptarmigan seemed more abundant in Unit 23 during the 1986-87 winter than they had been the previous one. In an attempt to better evaluate ptarmigan abundance, we recorded the number of ptarmigan observed while conducting aerial moose surveys during 1986-87 (Table 1). Disparity between areas surveyed, timing of the surveys, and inconsistencies with the recording of data prevented a meaningful comparison between the 1985-86 and 1986-87 data. However, data collection will continue for at least one more year to allow further evaluation of the feasibility of developing a ptarmigan abundance index.

Mortality

No effort was made to document or estimate small game harvests. We believe that hunting has relatively little impact on small game populations in Unit 23.

Management Summary and Recommendations

Only a minimal survey-inventory program for small game is appropriate at this time. The current level of opportunistic, subjective monitoring is sufficient to detect gross population problems that would require a more active program.

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Steven Machida
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Table 1. Sightings of ptarmigan recorded during moose surveys in Unit 23, 1986-87.

Period	Location	Actual/approximate no. of ptarmigan	Survey time (hr)	Ptarmigan per hour
Fall				
11/22/86	Selawik R.	66	3.4	19
11/23-24/86	Noatak R.	90	8.6	10
Spring				
2/12-14/87	Noatak R.	300	14.4	21
Totals		456	26.4	17

SMALL GAME

SURVEY-INVENTORY PROGRESS REPORT

GAME MANAGEMENT UNIT: 26A

GEOGRAPHICAL DESCRIPTION: Western Arctic Slope

PERIOD COVERED: 1 July 1986-30 June 1987

Season and Bag Limit

See Hunting Regulations No. 27.

Population Status and Trend

Willow ptarmigan are the most conspicuous small game found in Subunit 26A. These birds inhabit willow bottoms on the Colville River and other drainages on the North Slope, and they regularly occur inland on the Meade and Inaru Rivers near Barrow. Small flocks spend some of the winter months on the windswept bluff edges of the Beaufort and Chuckchi Sea coastline. Breeding willow and rock ptarmigan were observed near the Kogru River on the north coast. Ptarmigan tracks and flocks of birds appeared to be less abundant in the Colville River drainage in April 1987, compared with those of previous years. These observations were made in conjunction with late-winter moose and wolf track surveys. No surveys specifically targeted for ptarmigan were conducted during the reporting period.

Mortality

Ptarmigan were probably harvested by residents of most communities on the western North Slope. However, most of this harvest appears to be sporadic and incidental to other activities such as snowmachine travel between communities. No harvest data are available.

Management Summary and Recommendations

I believe that willow ptarmigan populations are unaffected by human harvest on the western North Slope. Although more precise information on harvest levels and population status is desirable, these needs cannot compete with other more pressing management issues in Subunit 26A.

Greater conformity between the present season and bag limits and the actual harvest practices that occur in Subunit 26A is desirable. Ptarmigan harvest continues well past the April 30

closure in at least several arctic slope communities. This apparent anomaly does not contribute to the Department's credibility among residents of Unit 26. The problems and ways of addressing it are appropriate for discussion at local Advisory Committee and Regional Council meetings.

No changes in seasons and bag limits are recommended at this time.

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