WORK PLAN SEGMENT REPORT
FEDERAL AID IN WILDLIFE RESTORATION

STATE: Alaska

PROJECT NO.: W-6-R-4 TITLE: Alaska Wildlife Investigations
&
PROJECT NO.: W-11-D-1 TITLE: Alaska Wildlife Stocking

PERIOD COVERED: January 1, 1963 to December 31, 1963

ABSTRACT

The stocking project (W-11-D) was initiated on July 1, 1963 and designed to incorporate the stocking activities previously planned and conducted under W-6-R, Alaska Wildlife Investigation projects: also, it provided a vehicle for the proper planning and conducting of additional wildlife stocking attempts.

Blue Grouse

Efforts to introduce blue grouse to Kodiak were unsuccessful. One hen and brood of five chicks were captured at Petersburg and shipped to Kodiak. The chicks died enroute. Other chicks were captured but subsequently released when the hen could not be captured.

Elk

Sixteen elk calves were captured on Afognak and nine were shipped to Neets Bay, Revillagigedo Island to be reared and released. Periodic checks throughout the winter failed to provide reliable information on the success of the release.

Moose

Seventeen moose calves were captured near Anchorage and shipped to Gravina Island to be raised. Ten moose were released on the Chickamin River in August. The moose were moved upstream to a more favorable location on August 10. One had died, another could not be found; therefore, only eight of the ten calves orginally released were relocated.

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It should be noted that a few of the activities conducted during this report period (Calendar Year 1963) were conducted prior to initiation of this project on July 1, 1963. These were properly documented under Project W-6-R-4 as Work Plan N, Game Introductions; therefore, this report should logically be considered to cover the last six months of Project W-6-R-4 and the first six months of 11-D-1.

OBJECTIVES

To prepare and submit a report summarizing all transplant activities within Alaska since 1954.

To conduct studies and prepare reports of justification and feasibility prior to initiation of projects.

To prepare and submit cooperative agreements covering the release and management of the transplanted animals with the appropriate land agencies.

To conduct follow-up studies of all releases to determine success.

To transplant elk to Neets Bay, Alaska.

To transplant moose to the Chickamin River, Alaska.

To transplant blue grouse to Kodiak Island, Alaska.

To assist the U. S. Bureau of Sport Fisheries and Wildlife capture muskox on Nunivak Island, Alaska.

To investigate capturing, holding, and transporting techniques to transplant sea otter from Prince William Sound to Southeastern waters.

RECOMMENDATIONS

Plans for future transplants should be presented to the public in order to assure the cooperation of the villages or towns affected by the transplants. The factual information needed to predict the outcome of a transplant and the coordination and planning necessary to conduct the operation should also be presented to the public to dispel the commonly held idea that successful transplants can be conducted in a spontanious manner without proper consideration of ecological and physiological factors.

TECHNIQUES

Summary of Transplants Since 1954

A limited amount of information was gathered on past transplants. Compilation and preparation of the report was not commenced.

Elk Transplant

The elk transplant to Afognak Island in 1929 had previously established that elk could survive in northern archipelagos. However, at the time elk were introduced to Afognak, no other grazing or browsing ungulates existed there. Elk transplanted to Southeast Alaska will be subject to an unknown degree of competition from the Sitka black-tailed deer which exist throughout the area. The objectives of this transplant are to determine the feasibility of establishing elk where Sitka black-tailed deer already exist, determine the effect that both species may have on forest reproduction, and evaluate the results in order to determine the feasibility of intorducing elk to other localities in Southeast Alaska.

An elk transplant from Afognak to Gravina Island was attempted in 1962. The semi-domesticated elk which were released on Gravina conflicted with the human inhabitants and were subsequently killed.

The reasons underlying the attempt to transplant elk to Southeast Alaska in 1962 remain unchanged. On the basis of a preliminary investigation on the feasibility of undertaking an elk release on Prince of Wales Island and a re-evaluation of the 1962 attempt to establish elk on Gravina Island, it was decided jointly by the Department of Fish and Game and the U.S. Forest Service to relocate the release site to Neets Bay on Revillagigedo Island. Neets Bays does not have human inhabitants; therefore, no immediate conflicts will result. If the elk increase and spread to the southern inhabited portion of the island, the elk population should then be large enough to withstand considerable hunting.

Neets Bay was approved as a release site by the Forest Service on July 3, 1963. A cooperative agreement between the Forest Service and the Department of Fish and Game was consumated and approved on July 16. Investigations of the release site were conducted and the biological reconnaissance report was submitted on July 23.

Capture and initial holding

Sixteen elk calves (10 males and 6 females) were captured on Afognak Island between June 12 and June 15. The techniques used

to capture and hold the elk were the same as those used during 1962. The techniques were described in the Alaska Wildlife Investigations, W-6-R-4, Work Plan N, Job 1. The calves were taken from herds occupying western Raspberry and Afognak Island. Twenty-four hours of helicopter time were devoted to capturing them.

The calves at the time of capture weighed from 67 to more than 100 pounds, the average being 90 pounds. An early leafing of vegetation made it difficult to locate and capture additional calves and capturing was discontinued earlier than planned. The calves were held until August 1 at pens constructed at the Navy recreation site at Afognak Lake. Nine calves (5 males and 4 females) were shipped to Neets Bay on August 1.

Transportation

The elk were taken directly from the capture site to holding facilities at the Navy recreation camp at Afognak Lake. From the recreation camp the calves were transferred by Naval vehicle and boat to Kodiak Naval Air Station. A Coast Guard C123 cargo aircraft was used to fly the elk to Annette Island. The calves were taken by truck to Metlakatla and an L.C.M. (landing craft) was used to ship them to Neets Bay.

Holding facilities and release site

The elk calves were held from August 1 to August 11 at Fire Cove on the south side of Neets Bay. The pen was 50 feet wide and 200 feet long. Approximately 125 feet of the pen was extended into the forest and the remainder was open sedge meadow. Supplemental feeding was discontinued during the final week and the calves continued to gain weight on the browse in the pen.

Release

The calves were released from the holding pen on August 11. The metal ear-tag number, colored plastic ear tags and sex of the elk calves which were released are listed below:

Table 1. Numbers and colors of ear tags and sex of elk released at Neets Bay on August 11, 1963.

Metal Ear-Tag No.	"Day-glo" Plastic Ear-Tag	Sex
6801 - 1476	Green	♀
1081 - 1477	Orange	♂
1074 - 1478	Orange	♂
1086 - 1479	Orange	♂
1087 - 1480	Green	♀
1080 - 1481	Orange	♂
1076 - 1482	Green	♀
1082 - 1483	Green	♀
1079 - 1484	Orange	♂

All nine elk were in good condition when released. The elk maintained a typical herd structure and remained at Fire Cove for about two weeks.

Post release observations

The elk were last seen on September 11. A cursory examination of the release site on October 9 produced no sign of elk. Forest service personnel examined the release area on October 25 and found elk spoor approximately one week old near the holding pen. On November 5 an air survey in a Cessna 185 again produced no evidence of the elk. Tracks of four to seven elk were located from the air on November 21 on the south slope at the head of Neets Bay and later confirmed on the ground. On November 27, no specific attempt was made to locate elk in the Neets Bay area; however, two trips in December to service lethal stations failed to produce any positive evidence of the elk.

During the attempts to locate elk in Neets Bay, tracks of wolves were observed in many areas. It was decided to establish lethal stations in an attempt to reduce the number of wolves in the area and therefore reduce the possibility of predation on the elk. Seven lethal stations were established; two in Shrimp Bay to the north of Neets Bay, three in Neets Bay, and two in Trader's Cove to the south of Neets Bay. Only one wolf was taken prior to December 31.

Moose Transplant

After the recession of the glaciers on the mainland of Southeast Alaska, the habitat which developed along the river-bottoms was in some instances suited for moose. Moose have naturally

invaded many of these valleys, but possibly due to physical barriers, several valleys which would appear to be potential moose range have not been invaded. One such valley was the Berners Bay area near Juneau where moose were transplanted and have succeeded in establishing a harvestable population.

A study of potential moose range in the Chackamin River area was prepared by the Forest Service on January 7, 1963. On the basis of this report, a cooperative agreement between the Forest Service and the Department of Fish and Game was consumated and plans were made to capture, rear, and release moose calves on the Chickamin River. A bio-reconnaissance report was prepared and submitted on July 23 in accordance with Federal Aid regulations governing the conduct of transplants.

Capture

Seventeen moose calves (6 males and 11 females) were captured on the Chickaloon Flats near Anchorage on June 7. They were captured by the same method used to capture moose calves for tagging. The techniques are described in the Alaska Wildlife Investigations, W-6-R-1, Work Plan B, Job 2c.

Transportation

The U. S. Air Force H21 helicopters used in capturing the calves were also used to transport the calves from the Chickaloon Flats to Anchorage. The calves were taken to the Robert Boyd Farm in Department of Fish and Game vehicles. On June 11 the calves were returned to Anchorage, held overnight at the Department of Fish and Game office and flown to Annette Island via an Alaska Air National Guard C123 cargo aircraft. A truck was used to transport the calves from the Annette airfield to the docking facilities at Metlakatla where the moose were placed aboard the Department of Fish and Game vessel "Kittiwake". Docking facilities suitable for the "Kittiwake" did not exist at the David Perry residence on Gravina and it was necessary to take the calves ashore in a skiff.

The calves were transported to the release site at the mouth of the Chickamin River in a L.C.M. (landing craft).

The transportation of the young moose to the holding site on Gravina was extremely arduous and the death of five calves shortly after arriving at Gravina was attributed to stress encountered during shipping.

Holding

At the Robert Boyd farm, the calves were fed canned milk and eggs. Vitamin A was administered to compensate for the lack of colostrum. At the David Perry residence on Gravina Island, the diet was altered as soon as the calves would accept a mixture of pablum (a commercial baby cereal) and canned milk, Rolled oats, Calf Manna, and natural feeds were taken as the calves developed.

Seven of the seventeen calves died during rearing. Of the ten which survived, six were females and four were males.

Release

In August, the moose calves were released at the mouth of the Chickamin River. The calves became a nuisance to James Wolf, the only resident on the Chickamin River, and on August 10 it became necessary to move the animals to a new location one and a half miles up the river. Only eight of the ten calves released at the mouth of the Chickamin were moved to the new location. One of the original released calves was found dead and another could not be found, and therefore was not relocated. The metal ear tags numbers, plastic tag color, and the sex of the animals are listed in the following table:

Table 2. Color and numbers of ear tags and sex of moose released at Chickamin River during August, 1963.

Metal Ear-Tag No.	"Day-glo" Plastic Ear-Tag	Sex
1432 - 1433		♀
1438 - 1439		♀
1446 - 1447		♀
1448 - 1449		♀
1454 - 1455		♀
1460 - 1461		♀
1428 - 1429	Pink-Red	♂
1442 - 1443	Pink-Red	♂
1458 - 1459	Pink-Red	♂
1436 - 1437	Pink-Red	♂

Post release observations

A trip was made to the Chickamin on October 25 to attempt observation of the moose. No moose were seen; however, James Wolf, the resident of the area, had seen moose about October 15. A second trip was made on November 14. Tracks were seen which were

believed to be moose tracks, but it was not possible to confirm them on the ground. An unidentified wolf kill was located on the Chickamin River near the release site on a flight made November 27. Again it was impossible to verify the species of the kill or the indentification of tracks seen from the air. Because of the wolf activity in the area, it was decided to establish lethal stations along the Chickamin River. Preparations were made to establish lethal stations, but none were established prior to December 31, 1963.

Blue Grouse Transplants

Capture

Attempts were made to capture blue grouse from June 1 to July 15, 1963, in the Petersburg area. The conditions encountered were not conductive to locating blue grouse during the summer of 1963. For reasons which were not entirely understood, the first brood was not located until June 25. At this late date the chicks were able to fly and difficuly to capture.

As a result only one female blue grouse with five chicks was captured and shipped to Kodiak. All the chicks expried enroute. The hen, which survived the transportation, was released at Isthmus Bay on the Chiniak Peninsula. Several chicks from other broods were captured at Petersburg but they were subsequently released when the hen could not be captured.

Consistent and successful capturing, holding, and transporting techniques have not been developed for blue grouse. A successful transplant to any location will depend on the ability to develop such techniques.

Muskox

A plan to capture muskoxen for the National Zoological Park was cancelled and the Leader did not devote any time to this specific activity. A survey of the literature on muskox ecology was commenced in preparation for a transplant of muskox from Nunivak to an undetermined location on the Alaska Mainland.

Sea Otter

Plans were made to commence investigations in Prince William Sound during the late winter period. No field work was performed on this phase during this report period.

Dall Sheep

In consideration of several requests to introduce Dall sheep to the island of Kodiak, a preliminary investigation of the alpine

areas of Kodiak was initiated. A reconnaissance flight was made on October 17, 1963 to locate areas which would possibly be suitable sheep habitat. The areas which appeared to be suitable were delineated on a map and a second flight was planned for late winter to evaluate snow accumulation in those areas. It was also planned to collect forage samples from those areas which appeared sufficiently snow-free to support sheep.

SUBMITTED BY:

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C O P Y

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
WASHINGTON 25, D.C.

C O P Y

Honorable Ernest Gruening
United States Senate
Washington, D. C. 20510

Dear Senator Gruening:

On January 24 Mr. George Sundborg made inquiries on behalf of yourself, Senator Bartlett, and Representative Rivers regarding the advisability and practicability of introducing Dall sheep and black grouse on Kodiak Island. This inquiry was prompted by proposals from Mr. Karl Brunsted of Kodiak that the Federal Government undertake such restocking.

We have obtained a report from the Regional Director of the Bureau of Sport Fisheries and Wildlife's Portland, Oregon, office on the feasibility of these introductions. Also, we have conferred with Dr. Gardiner Bump, of the same Bureau, regarding the practicability of establishing black grouse on Kodiak Island. Dr. Bump is in charge of research on exotic game bird introductions and is well qualified in this field.

At present, the practicability of introducing Dall sheep on most of Kodiak Island is uncertain. We doubt that introductions would result in a substantial increase in the population of these animals since Dall sheep do not thrive in areas of heavy precipitation such as occurs on Kodiak Island. Here annual precipitation averages 61.48 inches, based on 36 years of records. Dall sheep ranges in Alaska generally have less than 15 inches annually. Nevertheless, there may be some portions of the island with below-average precipitation where Dall sheep might become established.

We doubt that black grouse would thrive on Kodiak Island. According to Dr. Bump, an important part of the bird's habitat is woodland in which birch and poplar are common. It is doubtful if there is enough woodland of this type to make Kodiak Island a suitable place for trial of black grouse. Elsewhere in southeastern Alaska, however, there should be a considerable amount of range on which this species might be expected to survive.

There is also the question of securing stock of black grouse required for liberation. Experience indicates that the minimum number necessary for satisfactory trial would be from 50 to 100 birds. Dr. Bump has learned that this number cannot be secured from Scandinavia, but there

may be a possibility of purchasing them from European Russia. Dr. Bump may be in the U.S.S.R. this year studying game birds potentially adaptable to conditions in the United States. In this event we would be glad to have him check on the availability of black grouse if you so desire.

Wild-trapped black grouse are difficult to handle in captivity. The cost per bird trapped for us in Scandinavia in 1950 was about $30 each; this would be higher at the present time. In addition, all birds secured would have to be quarantined in this country for a period of three weeks before being shipped to Alaska, so that the final cost figure might be closer to $50 a bird. Under the Bureau's Foreign Game Introduction Program, such costs would have to be met either by the Alaska Department of Fish and Game or by private subscription. Included in this figure are the costs of trapping, shipping and quarantining the birds if secured for you through this program.

It should also be mentioned that several attempts to introduce this species into the northern United States have met with failure, and that the chances of success in Alaska, while greater, would depend in large measure upon the selection of ideal habitat, and upon how carefully such a project could be carried out.

The Bureau of Land Management is jointly responsible with this Service for administering public lands under consideration. We would be glad to join with the Alaska Department of Fish and Game and representatives of the Bureau of Land Management, where applicable, in exploring the possibilities for establishing Dall sheep on portions of Kodiak Island and black grouse on other areas in Alaska offering greatest promise.

Sincerely yours,

Commissioner

cc: Hon. E. L. Bartlett
Hon. R. J. Rivers
Regional Director, Portland, Oregon

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