

ALASKA DEPARTMENT OF FISH AND GAME  
JUNEAU, ALASKA

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GAME INTRODUCTIONS

by

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Volume IV  
Annual Project Segment Report  
Federal Aid in Wildlife Restoration  
Project W-6-R-4, Work Plan N

The subject matter contained within these reports is often fragmentary in nature and the findings may not be conclusive; consequently, permission to publish the contents is withheld pending permission of the Department of Fish and Game.

(Printed December 1963)

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WORK PLAN SEGMENT REPORT  
FEDERAL AID IN WILDLIFE RESTORATION

STATE: Alaska

PROJECT NO.: W-6-R-4 TITLE: Alaska Wildlife Investigations

WORK PLAN: N TITLE: Evaluation of Game Introductions

JOB NO.: 1

PERIOD COVERED: June 1, 1962 to January 30, 1963

ABSTRACT

On August 31, 1962 five male and three female Roosevelt elk calves were released by the Alaska Department of Fish and Game at Vallenar Bay on Gravina Island. The calves were captured in mid-June on southwestern Afognak and western Raspberry Islands and were shipped by air on July 5, aboard a Coast Guard C-123 cargo transport to Annette Island in southeast Alaska. The calves were then transported by vessel to Gravina Island where they were held in a 1 1/3 acre enclosure until released approximately two months later.

On January 30, 1963, all eight of the calves released at Vallenar Bay were shot and killed by a local homesteader who claimed they were damaging his property.

RECOMMENDATIONS

None.

WORK PLAN SEGMENT REPORT  
FEDERAL AID IN WILDLIFE RESTORATION

STATE: Alaska  
PROJECT NO.: W-6-R-4 TITLE: Alaska Wildlife Investigations  
WORK PLAN: N TITLE: Evaluation of Game Introductions  
JOB NO.: 1  
PERIOD COVERED: June 1, 1962 to January 30, 1963

OBJECTIVES

To evaluate the feasibility and success of an elk introduction to Gravina Island, southeast Alaska.

TECHNIQUES AND ACCOMPLISHMENTS

Calf Capture - Afognak Island Group

An experimental elk introduction was initiated June 1962 with the capture of eleven elk calves from Afognak and Raspberry Island herds. The experiment was a joint undertaking of the Department of Fish and Game and the U. S. Forest Service.

The services of a Bell HUL three place helicopter and two man crew attached to the Coast Guard Air Detachment of Kodiak and a H-21 helicopter of the 80th Transportation Company, U. S. Army, Ft. Richardson were furnished the Department during portions of the operation.

All calf captures were accomplished in the treeless portions of western Raspberry and southwestern Afognak Islands.

Flying conditions during the period of operation varied from extremely poor to good. Wind, rain and fog hampered the program for the first five days. Thereafter, wind, turbulence and early morning fog occasionally prevented aerial work in certain areas but for limited time only. Aerial surveys using a Piper Supercub were flown each morning between the hours of 3:30 A. M. and 5:00 A. M. to determine location and numbers of calves in each herd. Once the herds were reconnoitered and calves spotted the aircraft returned to the base



Figure 1. Ground crew capturing elk calf on Raspberry Island with the assistance of an Army H-21 helicopter.



Figure 2. Capture crew securing an elk calf for shipment to holding pen located at Afognak Lake.

of operations on Afognak Lake and the helicopter with capture crew was deployed to the herd containing the greatest number of calves. This procedure reduced the capture time per calf and increased the overall efficiency of the operation.

Due to the limitations of both the Bell HUL and the H-21 helicopters operation under existing conditions of weather and terrain in the Afognak area, special techniques developed in 1961 for capturing calves were again used. Once a herd containing calves was located the pilot would land the helicopter several hundred yards ahead and above the herd while the capture crew deplaned. The pilot would then procede to drive the herd in the direction of the ground crew attempting to separate the calves from the other animals. After a chase usually lasting several minutes the smallest calf with the least stamina would lag behind the others and the pilot would then concentrate on this animal. After further pursuit the calf would tire and seek rest by laying prostrate in whatever cover it could find. Usually, this was tall grass or a clump of alder. At this point the pilot would hover the helicopter a few feet above the animal while the down draft from the roter blades drowned all but the noise of the helicopter and frequently frightened the calf sufficiently to keep it down. Meanwhile, the capture crew would run to the site where the calf was hidden. Upon receiving visual instructions from the pilot, the men on the ground would approach the animal from behind, taking care not to be observed, and when close enough, would leap onto and capture the calf. After the animal was caught it was secured and marked for later pickup. The helicopter was then summoned to pick up the ground crew, and search for another calf was resumed. Later the captured calves were picked up and transported to a holding pen that had been constructed at Afognak Lake.

The success of capture varied from day to day and from herd to herd with a low of two captures and a high of six captures per day of operation. At the conclusion of the operation eleven calves were captured and transported to the holding pen. As was noted in previous operations, the greatest single factor contributing to the low number of captures was the inability of the pilot and ground crew to locate a sufficient number of calves to work with. During the last few days of the program the dense alder stands which comprise much of the vegetation in the capture areas were observed to develop from bud to leaf providing cover and making calf capture extremely difficult if not impossible.

## Handling and Care of Calves at Afognak

A holding pen 60 feet square and nine feet high was constructed at the Afognak Lake Navy Recreation Camp prior to the operation. As soon after capture as possible calves were placed in the holding pen. Upon release, many of the calves were noted to "flight" the fence; however, this lasted for only a few hours until the animals became accustomed to confinement. As more calves were placed in the pen, fewer such incidences recurred. Calves were held for a period of approximately two weeks prior to their shipment to Gravina Island.

Within three hours of release into the pen each calf was given its initial feeding which consisted of 26 ounces of Carnation evaporated milk. A standard livestock starter pail equipped with a rubber nipple was used.

Feeding for the first week required the assistance of two men; one to hold the calf while the other administered the milk with aid of the rubber nipple. The jaw of the calf being fed was forced open, the nipple inserted and then manipulated. Calves reluctant to take milk were forced to do so by oral irrigation which necessitated swallowing.

Milk consumption increased rapidly after the first few feedings, and within three days of capture nearly all calves associated the starter pail with their source of food and began taking milk directly from the pail without aid of the nipple. As a supplement, 1/2 c.c. of high potency vitamins were given daily to each calf to insure good health. As soon as calves were accustomed to taking milk either directly from the pail or freely from the nipple, two tablespoons of Karo syrup and four tablespoons of Pablum baby cereal were given with each 32 ounces of undiluted evaporated milk. Pablum was later increased to 14 tablespoons per 32 ounces of milk. The per day calf consumption of milk increased from 32 to approximately 100 ounces within two weeks.

For a period of four days after capture all calves were fed three times daily; however, it was soon apparent that many had to be force fed during one of the feedings. As a result, two feedings per day were subsequently adopted without any ill effect to the calves.

During confinement several calves developed mild to moderate scouring. Kaopectate was initially used to combat this condition; however, it proved unsatisfactory. Later a



Figure 3. A portion of the eleven Roosevelt calves captured and held on Afognak Island.



Figure 4. Feeding elk calf at Afognak Lake enclosure.



commercial scouring powder prepared by Ralston Products was used at a rate of 1 1/2 tablespoons once daily for three days. Treatment with this drug promptly cleared any sign of scouring.

Prior to being placed in the holding pen calves were given an intra-muscular injection of 600,000 units of Bicillin to combat shock or shipping fever resulting from capture and handling. Subsequent injections were given animals that showed signs of weakness or lack of alertness during their confinement.

All calves gained weight during their confinement at Afognak as determined by weekly weighing. The greatest gain occurred over an eight day period when one male put on eleven pounds.

#### Transporting Calves to Gravina Island

On the morning of July 5 eleven calves were transported from Afognak Island to the Kodiak Naval Station by chartered Grumman Goose and placed aboard a Coast Guard C-123 cargo transport which departed Kodiak at 7 a. m. The transport arrived at Annette Island about four in the afternoon after stops at Cordova and Juneau. Upon landing at Annette one cow calf, suspected of having pneumonia, succumbed. The remaining ten animals were loaded on a Coast Guard truck and hauled to the village of Metlakatla where they were placed aboard the Department velles "Kittiwake" for the voyage to Gravina Island. Upon arrival at Gravina calves were carried ashore and placed in a 1 1/3 acre holding pen where they were to be cared for by the Dave Perry family until large enough to release.

#### Handling of Calves at Gravina

During their period of confinement at Gravina calves were a commercially prepared calf mixture and pabulum mixed with Carnation evaporated milk. This diet was supplemented by natural food species within the enclosure. All plants available were utilized to some extent, but huckleberry (Vaccinium spp.), salal (Gaultheria shallon), false azalea (Menziesia ferruginea) and bunchberry (Cornus canadensis) appeared to be preferred browse species.

The size of calves at the time of release varied from about 50 to 150 pounds. Three males and one female weighed from 125 to 150 pounds and the other two males and two females between 50 and 100 pounds. During the period of captivity the smaller animals were pushed aside and did not

receive their share of food. When attempts were made to separate these calves from the larger ones they refused to eat. As a result of this and other factors one male and one female calf of the original ten animals succumbed during confinement.

#### Release of Calves at Vallenar Bay

On August 31, 1962, five male and three female elk calves were released at Vallenar Bay on Gravina Island. The Coast Guard Base at Ketchikan provided the use of a LCVF landing craft for transportation of calves from the enclosure to Vallenar Bay. A pen, approximately eight feet square and six feet high, was constructed aboard the landing craft. The top was covered with seine web to prevent the calves from jumping out and canvas was placed on deck to keep them from slipping. The landing craft was run aground on the incoming tide and Mr. Perry first attempted to have the animals follow him aboard; however, the calves refused to leave their pen. They were then confined to the feeding shelter and led one at a time to the landing craft. Two rope halters were placed about each calf's neck. A man was placed on each side holding the ropes, two behind pushing and one ahead pulling. After an initial struggle, the animals could be forcibly led down the beach and aboard the landing craft. The calves were led through the water with no ill effects. Once aboard the landing craft the animals were released within the covered pen where they quickly calmed down and made no attempts to escape. Upon landing at Vallenar Bay the calves were reluctant to leave the craft and had to be driven ashore where they were herded up a logging road for a distance of about 1/4 mile.

The Vallenar Bay drainage contains approximately 1200 acres of logged-over land, most of which presently supports a dense growth of plants which are acceptable food species for elk. Red elderberry (Sambucus racimosa), salmonberry (Rubus spectabilis), thimbleberry (Rubus parviflorus) and red and blue huckleberry (Vaccinium parvifolium and V. ovalifolium) are plentiful in the cutover areas. Various forbs including bunchberry are abundant in most locations and salal is found extensively in scrub areas adjacent to muskegs.

To protect the transplant a special closed season on deer effective September 1, 1962 was declared in the drainages of Vallenar Bay and Vallenar Creek and a continuous closed season on antlerless for all of Gravina Island.

From the period of release until January 30 all calves gained weight and did very well in the Vallenar Bay area;

however, on January 30 a local homesteader shot and killed all eight calves, stating they were damaging his property.

Cooperators

The efforts of several federal agencies, notably the Coast Guard, Army, Navy and Forest Service, made possible the transplant of elk from Afognak to Gravina Island.

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WORK PLAN SEGMENT REPORT  
FEDERAL AID IN WILDLIFE RESTORATION

STATE: Alaska

PROJECT NO.: W-6-R-4 TITLE: Alaska Wildlife Investigations

WORK PLAN: N TITLE: Evaluation of Game Introductions

JOB NO.: 2

PERIOD COVERED: May 1, 1962 to April 30, 1963

ABSTRACT

During June and July, 1962, attempts were made to capture blue grouse (Dendragapus obscurus sitkensis) on Mitkof Island in Southeast Alaska for transplant to Kodiak Island. Most of the effort was spent developing techniques for capturing and holding the birds. Twenty grouse were captured, eight of which survived and were transplanted to the Chiniak Peninsula.

RECOMMENDATIONS

A study should be conducted to determine the suitability of Kodiak Island as grouse habitat.

The possibility of obtaining adult birds or brood eggs from domestic sources should be investigated.

If further attempts are made to capture wild birds, much more attention must be devoted to keeping the birds alive, once captured.

WORK PLAN SEGMENT REPORT  
FEDERAL AID IN WILDLIFE RESTORATION

STATE: Alaska

PROJECT NO.: W-6-R-4 TITLE: Alaska Wildlife Investigations

WORK PLAN: N TITLE: Evaluation of Game Introductions

JOB NO.: 2

PERIOD COVERED: May 1, 1962 to April 30, 1963

OBJECTIVES

To capture live blue grouse (Dendragapus obscurus sitkensis) in Southeast Alaska and to transplant them to Kodiak Island.

TECHNIQUES

Method of Capturing

Adult hens with broods were usually located by driving along the Mitkof Highway, which extends 26 miles south of Petersburg, and also by checking side roads and gravel pits which birds might frequent. If dusting sites were located, the area was subsequently checked at regular intervals. Birds were most commonly observed on warm days from 9:00 a.m. to 4:00 p.m. No broods were located on days when it was raining or in the very early morning or late evening. Birds were found most often along stretches of highway which passed through open muskeg country. Broods appeared to remain in the same locality and were sometimes seen on several occasions. If a brood was observed, but not captured, the location was marked and searched on later occasions.

When a brood was located, it would be approached quietly and an attempt made to capture one or two chicks before they hid in the dense growth. The hen would immediately give an alarm call (a cluck) and fly or run at the intruder with wings outspread and emitting a hissing sound. The remaining chicks would hide, and remain hidden, until the hen called them. The captured chicks were then placed in cartons in a cool location.

If the observer remained in the near vicinity, the hen would usually fly to a low branch of a nearby tree and remain there, continuing to give the alarm call until the observer departed the area to a distance of about 100 yards or to a location where he was hidden from the view of the hen. The hen would then, within one to five minutes, fly to the location where she left the chicks and begin calling them with a long, guttural, soft call. The chicks would immediately emerge from their hiding places and the hen would lead them from the area.

As soon as the observer would hear the hen calling, he would return and attempt to capture additional chicks. This procedure was repeated until all the chicks were captured. The hen was then obtained by calling like a chick (low whistle) or by holding a chick in the hand and letting it call. The hen would then approach to within a few feet where it could be captured with a net.

The net was improvised from a 30 inch salmon landing net which had a four foot handle. A six foot length of bamboo was inserted into the end of the handle to make a total length of ten feet. The net was made from nylon herring mesh (one inch mesh). The pocket of the net was eight inches deep. Chicks and hens were placed in separate boxes for initial transportation. They remained quieter if kept under darkened conditions. It was essential that they be kept cool and well ventilated while in cartons.

#### Holding and Feeding

Each brood was placed in a separate pen which was two feet by five feet in size and with four foot high plywood sides. The top of the pen was covered with wire mesh, but a solid canvas cover would be preferable as the hens would sometimes cut themselves about the head when they would fly into the wire in attempts to escape. The hens were very excitable and any disturbance would cause them to fly against the wire. Broods were kept in a dry, unheated building where the temperature was about the same as that outside.

Both adults and chicks consumed large quantities of food, sometimes equal to their own weight in a day. Diet consisted of chopped apples, tomatoes, lettuce, boiled eggs and ground dog food (dry). Dog food and boiled eggs were given to add protein to the diet as blue grouse consume large quantities of insects. Salmonberry and elderberry leaves were also included in the diet. Tomatoes were the preferred food. The grouse would usually pick out the tomatoes first, leaving the

other food items until the tomatoes were consumed. Food, grit and water were kept before the birds at all times.

### Shipping

Broods were shipped when the chicks were two to four weeks old. Shipping boxes were cardboard cartons, 12 x 18 x 24 inches in size. They were divided in two sections, the hen being placed in one and the chicks in the other. Food trays were constructed in each carton and were lined with aluminum foil to prevent leakage. Trays were divided in two sections, one for dry and one for moist food. Two days rations were placed in each box prior to shipment. The boxes were ventilated by cutting holes, 3/4 of an inch in diameter, around the tops. Each carton was painted a florescent red to attract attention and marked "LIVE GROUSE - KEEP COOL".

### FINDINGS

Blue grouse broods first became available about mid-June and efforts were made to capture them until mid-July. At this time chicks were all large enough to fly. Chicks were fairly easy to capture during the first week after hatching, but became very elusive after reaching the flight stage.

Mortality was very high; 12 of the 20 birds captured died prior to release. Deaths were due to overheating, overcooling, insufficient food, trampling, pecking of chicks by hens, and unknown causes.

Eight birds, two hens and six chicks, survived and were released on Chiniak Peninsula, Kodiak Island in mid-July.

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