ALEUTIAN CANADA GOOSE TRANSPLANT FROM BULDIR ISLAND TO AGATTU ISLAND, ALEUTIAN ISLANDS, ALASKA SUMMER 1984

by
FREDRIC G. DEINES

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ALEUTIAN ISLANDS UNIT
ALASKA MARITIME NATIONAL WILDLIFE REFUGE
BOX 5251 NAS ADAK
FPO SEATTLE, WA 98791-0009
(ADAK, ALASKA)

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Aleutian Canada Goose Transplant from Buldir Island to Agattu Island, Aleutian Islands, Alaska -- Summer 1984

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AUTHOR(S)
Fredric G. Deines

CITATION

OBJECTIVE
Capture Aleutian Canada geese and transplant to Agattu Island to continue efforts toward reestablishing a nesting population on Agattu Island.

METHOD OF STUDY Geese were captured on Buldir Island by searching the upper and lower edge of the lowland tall plant association where tall plants offer cover and short plants offer succulent food. When the geese were captured, they were sexed, aged and banded with a numbered colored plastic leg band and size 7B FWS leg band. Within 72 hours after capture the birds were transported to Agattu via the charter vessel "Vestfjord" and released at Goose Creek in Aga Cove, Agattu Island.

MAIN FINDINGS A total of 92 geese were captured on Buldir. Of this number, four died in the capture or transplant efforts. The four birds that died represented a four percent mortality factor for all the birds captured and transplanted. A total of 88 Aleutian Canada geese composed of 56 goslings and 32 adults were successfully transplanted and released on Agattu Island.

CONCLUSIONS The capture and transplant of wild Aleutian Canada geese from Buldir Island is the most efficient method for reestablishing nesting populations of this sub-species on islands cleared of foxes where the geese historically nested (prior to the introduction of foxes near the turn of the century). This was confirmed earlier this summer when three nests and one brood were found at Cape Sabak, Agattu Island.

MANAGEMENT IMPLICATIONS Continuation of transplant efforts will lead to reestablishment of nesting populations of this endangered sub-species on Agattu and other islands and hopefully lead to the species' eventual removal from the endangered species list.

ADDITIONAL REMARKS

UPDATES OR SUPERSEDES I.D. NO.

PROGRAM

FOR COPIES OF PUBLICATION OR REPORT CONTACT

LIST OF EXPEDITION MEMBERS

Chris Ambroz - Biological Technician, AIU-AMNWR, Adak, AK
Ellen Deines - Volunteer Biologist, AIU-AMNWR, Adak, AK
Fred Deines - Refuge Biologist, AIU-AMNWR, Adak, AK
Cathy Edgerton - Volunteer Biologist, AIU-AMNWR, Adak, AK
Tom Edgerton - Outdoor Recreation Planner, AIU-AMNWR, Adak, AK
Mike Goos - ADC Assistant, WR/ADC, Bismarck, ND
Kim Hanson - Staff Assistant, WR/ADC, Grand Junction, CO
Scott Hatch - Biologist, Research, Anchorage, AK
Forrest Lee - Volunteer Biologist, Endangered Species, Anchorage, AK
Mark Koepsel - Biological Technician, AIU-AMNWR, Adak, AK

ACKNOWLEDGEMENTS

Special appreciation must be extended to Volunteer Biologists and Biological Technicians for their assistance in the 1984 Aleutian Canada goose capture, banding and transplant efforts. Their enthusiastic and professional participation helped complete the efforts in a timely manner under difficult working conditions. Thanks must also be given to the "Vestfjord" crew members for their assistance in our goose capture and transplant efforts. Consultation, advice and other assistance from Forrest Lee proved to be an invaluable asset during the transplant operation and during the preparation of this report. Appreciation is also extended to Fred Zeillemaker, AIU Refuge Manager, for editing this report.

INTRODUCTION

The U. S. Fish and Wildlife Service is attempting to reestablish the endangered Aleutian Canada goose on selected historic nesting islands that have been rendered fox-free in the western portion of the Aleutian Chain (Fig. 1). To accomplish this goal, hand-reared birds were formerly transplanted to some islands in hopes that they would reestablish nesting populations. This was not successful as the birds had no knowledge of the migration route to California wintering grounds and they subsequently perished. The next effort was to release a combination of hand-reared birds and wild birds transplanted from Buldir Island. It was hoped that the experienced wild adults transplanted from Buldir would serve as "guides" for their goslings and the hand-reared birds transplanted with them. The young of the year would then return to the island on which they first became capable of flight and establish new breeding populations. This combination of hand-reared and wild geese was used at Agattu in 1978, 1979, 1980 and 1982. Although many of the wild goslings returned to the island of their release, again there was little success with the hand-reared birds. Therefore, the release of hand-reared birds was discontinued following the 1982 program. The 1983 and 1984 transplants have been composed solely of wild birds captured at Buldir.

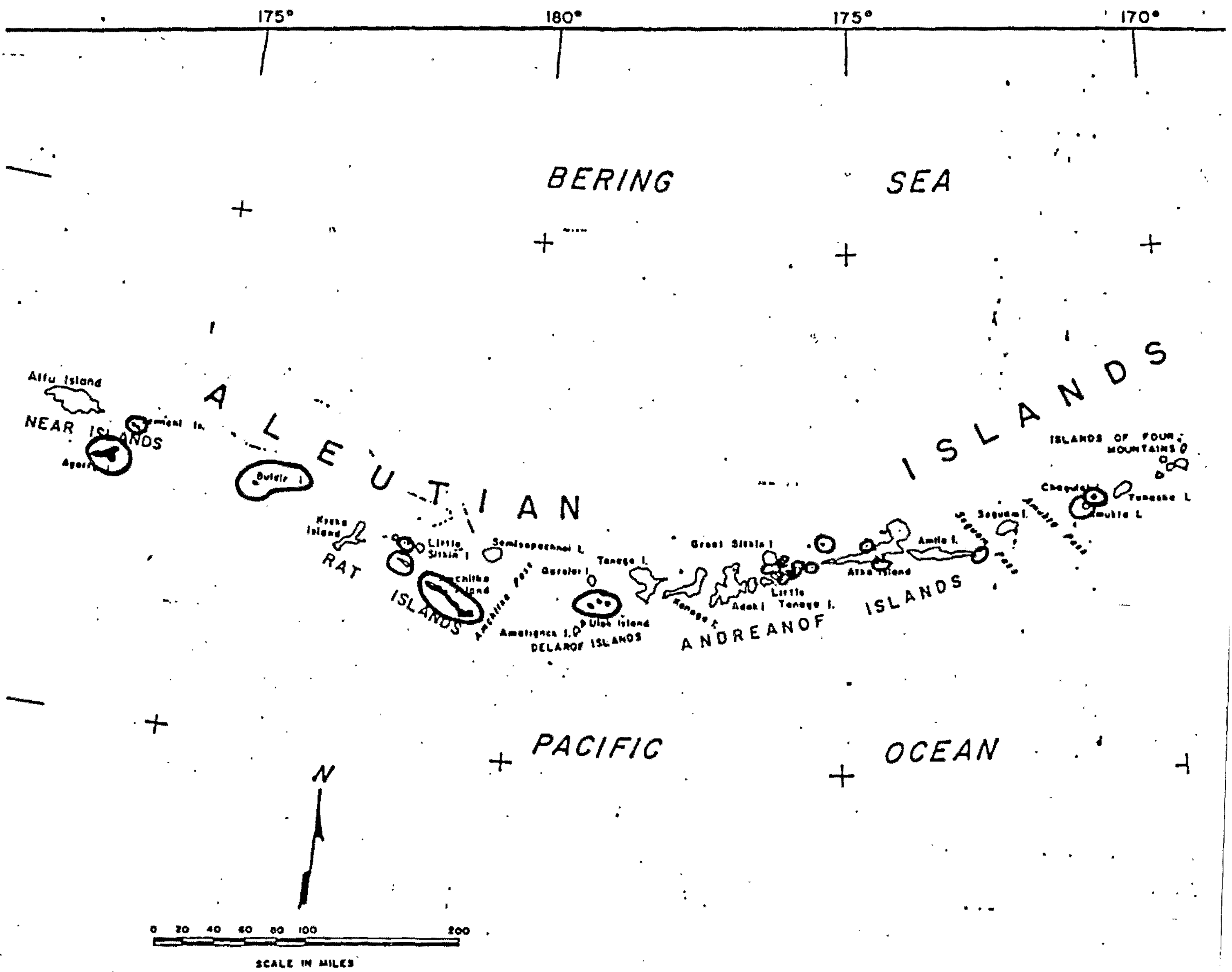


Figure 1. THE WESTERN AND CENTRAL ALEUTIAN ISLANDS
(Circled Islands are fox free)

The goal for the 1984 season was to capture and transplant 100 geese from Buldir to Agattu. This was not possible, however, due to a shortened schedule caused by boat delays and some of the worse weather ever encountered during a transplant effort. During the capture and transplant operations every effort was made to keep the family groups together, although this was not possible in all cases.

METHODS AND MATERIALS

Work was conducted on Buldir and Agattu Islands from 30 July to 5 August 1984. Not all personnel participated in the capture efforts of wild Aleutian Canada geese on Buldir Island this season. Due to the bad weather, Scott Hatch, Forrest Lee and Mark Koepsel were not able to go ashore to participate in the capture after they arrived off Buldir from Shemya. The geese captured on Buldir were eventually transported to Agattu via the charter vessel "Vestfjord". Only one transplant was made on the last day of the project due to the bad weather and reduced time schedule. Scott Hatch, Forrest Lee, Cathy and Tom Edgerton, Chris Ambroz and Kim Hanson participated in the one release on Agattu. Every effort was made throughout the capture, banding and transplant operations to reduce stress caused by handling and increase the birds' chances for survival.

Capturing the Geese

Most methods used while searching for geese were based on information obtained during past work at Buldir. Byrd and Woolington (1978) indicated that most family groups could be found near the upper edge of the lowland tall plant association and the lower edge of the upland short plant association where tall plants offer cover and the short plants offer succulent forage. When searching for geese, only one person usually walked in the short plant community and the others walked at a slightly lower elevation in the tall plant community. Depending upon vegetation and topography, personnel usually walked abreast at about 5 to 15 m apart (Early and Henry 1979). Most geese were encountered in the tall plant community from near its upper edge to about 200 m down hill. A 1 m long by 1/2 m wide long handled dip net was used to catch the geese. The net was most efficient when working in fairly even terrain with moderately short vegetation (Early and Henry 1979). The net helped prevent injury to birds during capture.

Usually, when one goose was sighted others could be located in the same area. This occurred with non-breeders as well as family groups of birds. It also became readily apparent that fresh goose droppings and clipped vegetation indicated geese were in the area. If no such sign was observed, very few if any geese were ever found (Early and Henry 1979).

Handling the Geese

This year to help reduce the initial shock of capture, handling of the birds in the field was kept to an absolute minimum. After capture the birds were immediately placed in small burlap bags. The burlap bags had one corner cut to allow the birds head and neck to extend outside of the bag. The corner was precut with all bag edges and seams hemmed to snugly fit the bird and minimize the chance for injury. The end of the bag was tied just beyond the bird's tail with a short piece of string to limit movement. This new system helped protect the birds better and improved our overall efficiency in the field. In the past, the age and sex of the bird were determined and the bird was banded with a FWS leg band prior to being put into burlap bags.

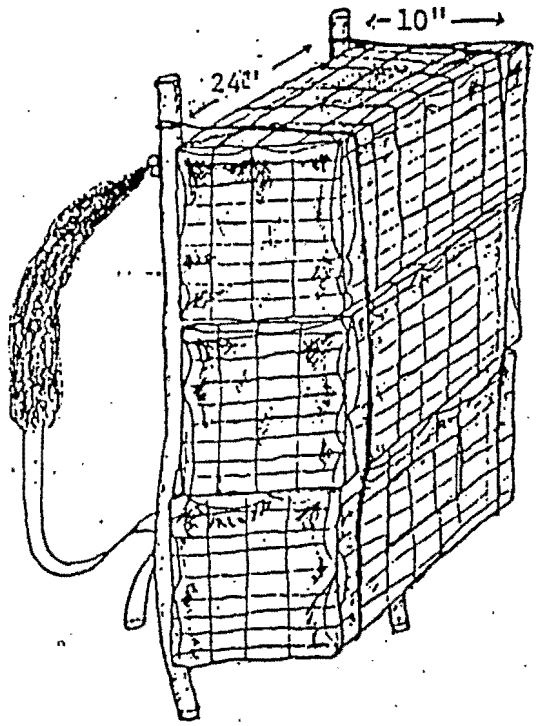
The bagged geese were then placed inside covered welded wire cages for transport to main camp. Three wire cages were attached to a backpack frame. Each compartment held two adult geese or two to three goslings (Fig. 2). Unnecessary walking with birds in the packs was avoided. When additional areas were about to be worked for a time, any goose laden backpacks were usually set aside while crew members chased other geese. Hiking back to camp was accomplished without unnecessary delays or rough treatment to the birds.

Upon return to the main camp at North Marsh, the geese were taken out of the backpack cages and burlap bags and placed in wooden goose crates to await processing. The banding materials, tubing supplies and other equipment necessary for processing of the birds were then gathered. Each person in the crew was responsible for a specific task and a small assembly line operation was established to process the geese. The age and sex of a bird was determined first, it was then banded with a metal FWS band and finally a blue colored leg band was affixed. The FWS band was placed on the left leg of males and right leg of females, while the colored bands were placed on the right leg of males and left leg of females. All this information along with the capture date and location was recorded in a field log.

All geese were then tube fed about 15cc of protein mixture (Table 1). The tube feeding continued once daily thereafter, including the day of transport. The birds were also tube fed just prior to release on Agattu. The tube feeding of the geese helps reduce the shock of handling, increases their chances of survival, and insures success of the transplant (Forrest Lee pers. comm.).

This year research efforts were conducted with the geese. First, fecal samples were collected from as many captured birds as possible to assist in a study to determine the extent of coccidial parasitism of the population. Fresh samples were taken directly from the bird whenever they would cooperate. Otherwise, samples were taken from the burlap bags used for transporting the geese. Hopefully, some indication of the extent of the infection in the Buldir population will be determined. The band number, sex, age, and capture location of each bird was recorded on each sample

Figure 2. ALEUTIAN CANADA GOOSE TRANSPORT SYSTEM



Note: Cages constructed of one-half inch wire mesh lined with burlap, and attached to a standard aluminum backpack frame.

Table 1. Goose Tubing Solution

Ingredient	Small mix (1 qt.)	Large mix (1 gal.)
ProSobee	1-13 oz. can	4-13 oz. cans
Electrolyte Powder	.75 tablespoon	3 tablespoons
Shaklee Protein Power	2 tablespoons	8 tablespoons
Nutrical	2.5 tablespoons	10 tablespoons
Water	sufficient to make 1 qt. of solution	sufficient to make 1 gal. of solution

vial. This system worked well the first time the bags were used. Samples were also gathered from reused bags, but labeled as "unknown goose" along with the capture location. Random fecal samples of "unknown geese" were also taken in the field at each capture location.

The birds were then released into a fenced 5 x 15 m enclosure built of metal fence posts and poultry wire. The enclosure included a poultry wire roof with burlap attached to the side walls as a visual barrier for the birds. A small plywood table placed at one end of the pen afforded the geese some protection from the elements. The area within the enclosure provided natural food and cover. Water and commercial goose feed were also provided. The band numbers of any birds which appeared to be suffering from paralytic shock syndrome were recorded at this time and at each subsequent tube feeding. These birds were watched more closely to monitor their recovery or, if needed, to provide additional care.

Just prior to transport to Agattu, the birds were taken from the holding pen and tube fed. They were then placed in 91 x 66 x 36 cm or 91 x 66 x 51 cm specially constructed wooden crates covered with burlap and lined with Elymus arenaria. Adults and goslings were put into separate crates to eliminate the potential of adult birds trampling younger ones during transport. The number of birds put into the wooden crates was limited to 4 to 6 adults or 6 to 8 goslings to prevent injury. Just prior to transport a second research effort was conducted. This involved taking several measurements, a blood sample and one sample of feather pulp. This research project will hopefully allow determination of population comparisons of geese at Buldir, Chagulak Island in the eastern Aleutians and Kaliktagik Island south of the Alaska Peninsula. There may be one sub-species of Aleutian Canada goose with some geographic genetic variation across the Chain or there may be three distinct sub-species of Canada geese nesting on southwestern Alaska islands.

Once the geese were placed in the crates, they were taken out to the charter vessel via a 4 m Zodiac inflatable boat powered by a 25 HP motor. The goose crates were then securely tied to the deck of the 29.9 m vessel and covered with heavy canvas. All efforts were made throughout handling of the geese to provide maximum protection from the elements.

In the past, transport of the geese generally occurred late the day of capture or early the following day. This was not the case, however, this year as weather delayed operations and allowed only one transport. Departure from Buldir Island occurred early in the evening which allowed for an early morning arrival at Agattu. The trip took about ten hours this year compared to eight hours in past years.

Upon arriving at Agattu Island, the geese were tube fed on the vessel, and taken ashore to the release point via inflatable boats. Prior to release of the geese at Goose Creek in Aga Cove

(Fig. 3), the birds were placed in an irregular shaped fenced holding pen (approximately 25 x 50 m) for about two hours. The fenced pen was part of a former larger enclosure at the site that had been used in previous releases to allow the geese to reestablish family groups. The revised fenced holding pen with burlap visual barrier proved quite satisfactory for the same purpose. The birds settled down quickly after release into the holding pen and began to feed on the vegetation. While the birds were in the holding pen, all excess fencing material disassembled earlier in the summer was taken out to the charter vessel to be disposed of at sea. The birds were then released from the holding pen and quickly departed the release site.

RESULTS AND DISCUSSION

A total of 92 Aleutian Canada geese were captured on Buldir Island (Table 2). Four of the birds were not transplanted to Agattu because they died during or following capture. All four were goslings. The four birds that died represented a four percent mortality rate for all birds captured.

A total of 88 Aleutian Canada geese were successfully transplanted to and released on Agattu Island. This total was composed of 56 goslings and 32 adults (Table 2). The birds released on Agattu included 22 male goslings, 34 female goslings, 16 male adults and 16 female adults.

Four of the birds transplanted to Agattu were recaptures. Three had red colored leg bands numbered P68, T42 and T30. Number P68 and T42 were both "second year" males banded on 24 March 1984 and 6 April 1984 respectively near Crescent City, California. Number T-30 was an "after second year" male banded on 1 April 1984 in the same area. The fourth recapture had a blue neck collar numbered 270. This bird was banded 30 July 1979 on Buldir as an "after hatching year" male.

Initial capture efforts began in the Bean Goose Lake area (Fig. 4) in the late afternoon. The late start was due to requirements for setting up the base camp earlier in the day. As usual, not many birds were captured (five goslings) in this area, but the operation had begun. A combination of rain, fog and wind caused a noon start for the second capture effort at Extra Plateau. Light drizzle, fog and heavy winds hampered our work all afternoon. Even with the less than desirable capture conditions, the area still provided 27 geese. The birds captured included an unusually high number of 19 adults. It was later speculated that perhaps the goslings in that area were holding tight due to the bad weather, allowing the capture team members to walk right by them. A red leg band numbered 397 was found lying on the ground at Extra Plateau. The bird formerly wearing this band was an adult female when banded in California on 31 March 1983. It was thought to have been seen later on the wintering grounds at Colusa California on November 15, 1983. A bird must be observed twice, however, for it to be considered a valid observation due

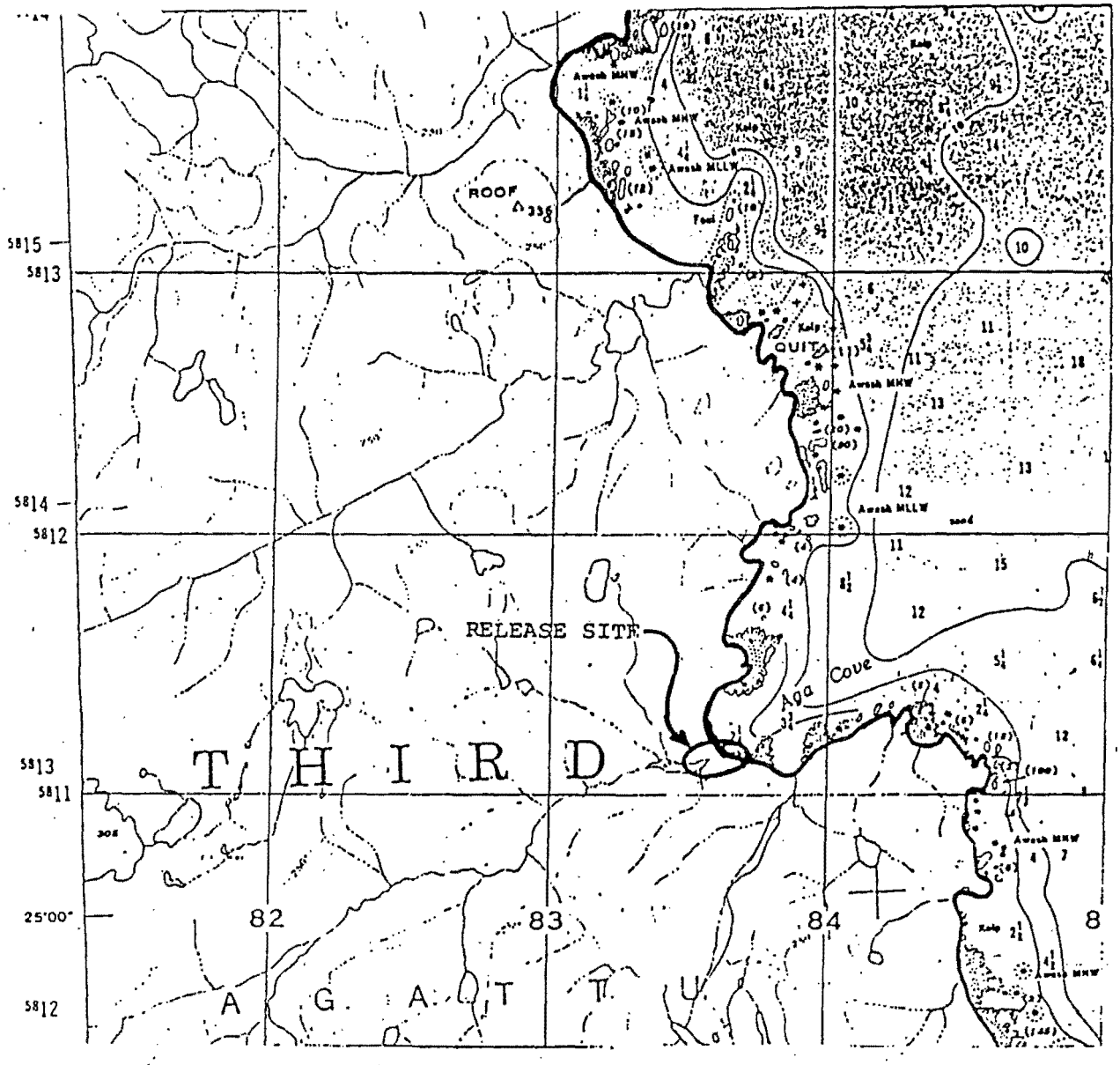


Figure 3. 1984 GOOSE RELEASE SITE AT AGATTU ISLAND

Table 2. Results of Capture, Banding and Transplant Efforts on Aleutian Canada Geese from Buldir Island to Agattu Island, 1984

Capture Date	*Capture Location	Transport Date	Number of Geese Captured and Banded			Mortality Buldir		Agattu		Number of Geese Successfully Transported to Agattu			
			AHY	LOC	Total	AHY	LOC	AHY	LOC	AHY	LOC	Total	
7/30/84	A	8/3/84	0	5	5	0	0	0	0	0	5	5	
7/31/84	B	8/3/84	19	8	27	0	1	0	0	19	7	26	**
8/01/84	C	8/3/84	5	10	15	0	1	0	0	5	9	14	***
8/02/84	D	8/3/84	8	37	45	0	2	0	0	8	35	43	****
TOTAL			32	60	92	0	4	0	0	32	56	88	

* A = Bean Goose Lake
B = Extra Plateau
C = Kittiwake Lake
D = Dip Camp

** Includes two birds previously banded (red leg band numbers P68 and T42).
*** Includes one bird previously banded (blue neck collar number 270).
**** Includes one bird previously banded (red leg band number T30).

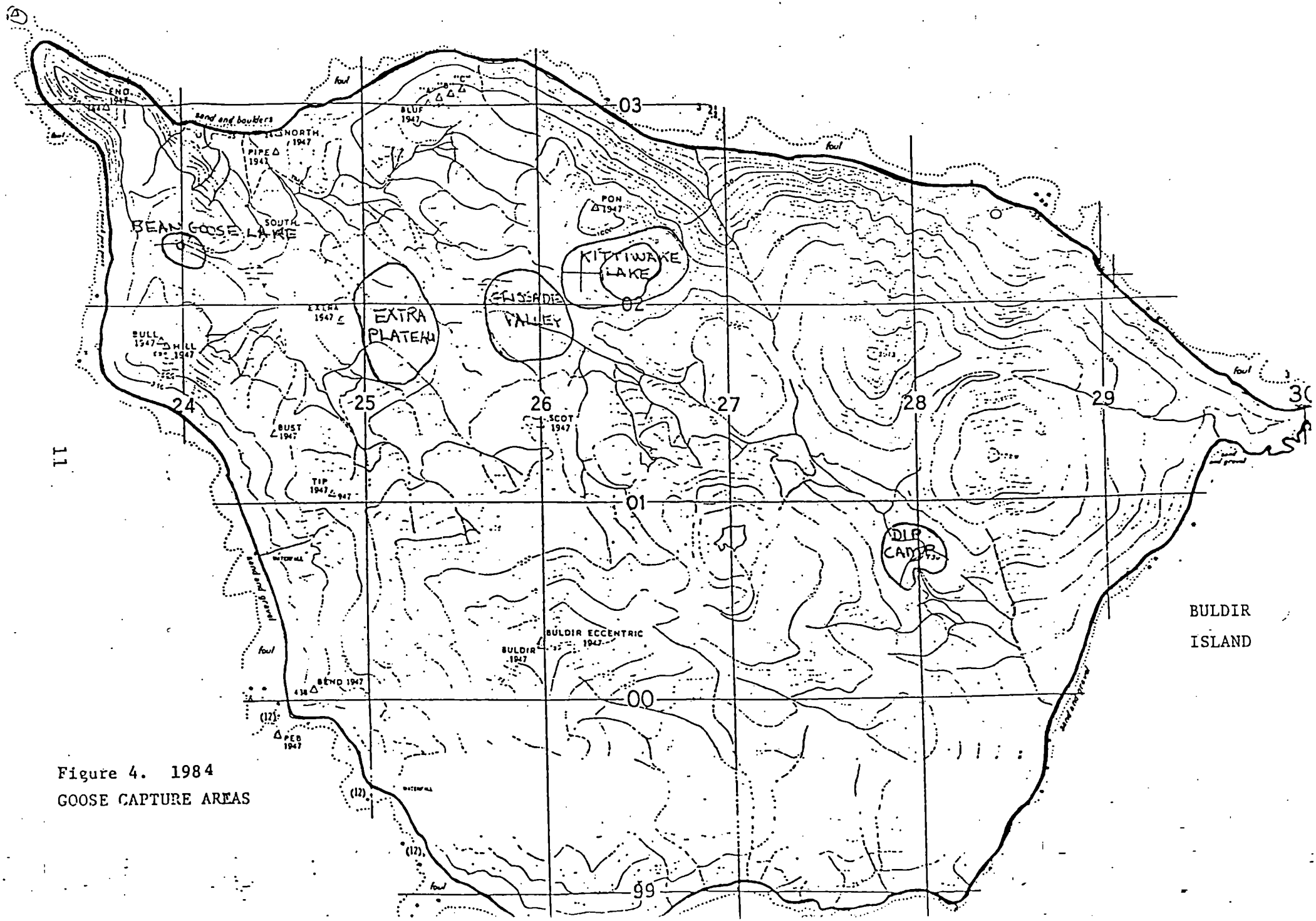


Figure 4. 1984
GOOSE CAPTURE AREAS

to the possibility of misreading a band number. Two birds capable of flight were observed in the area including a bird with a yellow leg band (California banded bird). The charter vessel arrived that afternoon, but was unable to land the rest of our capture crew or pick up geese for transplanting due to the foul weather.

Although the weather had cleared somewhat the next day, winds had reached gale force, and worse at times, while we continued our capture effort by climbing to Kittiwake Lake. The increase in wind speed caused a corresponding worsening of sea conditions and forced the charter vessel to flee for cover at Kiska Island, 104 km to the east of Buldir. The Kittiwake Lake area was not as productive as it was last year. It produced only 15 geese. Although a shoreline drive with two individuals using whistles was used, the birds apparently remembered their experiences of last year. The majority would not get off the lake. Approximately 150 geese were observed initially on the lake. To drive the geese from the lake effectively would require some type of packable raft, shell crackers or both. The large number of birds in this area and its close proximity to camp make it an excellent capture area when fog conditions are favorable. Improved capture techniques should be considered there.

The Dip Camp area was the most productive capture site this year, producing a record 45 geese (Fig. 4). It should be noted, however, that excellent weather may have played some part in our success. Clear, sunny skies and little or no wind improved the spirits of the capture team and made the work easier as the geese could be seen moving through the vegetation. The weather was almost too good and two goslings in packs died before our capture effort was completed. The warm weather and stress of capture were apparently too much for those birds. The Dip Camp area has always been a good place to capture geese, but the area is difficult to work due to its long distance from camp and usual fog problems.

The overall average age of aged goslings was 33.7 days (Table 3). By counting back 34 days from 2 August this meant that the peak of the hatch was about 30 June. By counting back an additional 27 days from 30 June one could conclude that the peak of initiation of incubation was 3 June. By counting back an additional seven days one could estimate that the majority of egg laying began on 26 May. The first week in June has always been considered the time when the majority of incubation begins at Buldir. The average age for birds captured in 1983 was 27.5 days (Deines, Zeillemaker 1983).

Even though nearly all the geese encountered at Buldir were incapable of flight, they were able to move quite rapidly over the rough island terrain. The geese were often able to outrun us in open areas, especially if they were headed uphill in short vegetation. On several occasions the capture crew was spotted by wary geese before the crew saw the geese. The only view the crew had of these birds was one of proceeding out of the area with all

expediency. They were impossible to overtake after such a head start. Our efforts to circle ahead of them also proved fruitless. Our capture efforts were most successful when we searched the zone where the tall vegetation (Elymus-umbell) gave way to the short vegetation (mossy-willow).

Although every effort was made to minimize the impact of capture and handling on the birds, some geese still showed signs of partial stress paralysis when they were released into the holding pens on Buldir or Agattu (Table 4). Generally, however, the affected birds seemed to have recovered within 24 hours. A few birds sustained some minor abrasion injuries during the handling and transport. These injuries were treated by spraying the affected areas with antiseptic.

Table 3. Estimated Age of Goslings Captured and Color Banded

	Colored Leg Band Number	Capture Location	Date of Capture	Estimated Age on Date Captured	Adj. Est. of Age in Days at time of transplant
1.	E78	Bean Goose Lake	7/30/84	32	35
2.	E51	"	"	35	38
3.	E52	"	"	20	23
4.	E53	"	"	39	42
5.	E54	"	"	33	36
6.	E58*	Extra Plateau	7/31/84	30	32
7.	E60	"	"	18	20
8.	E62	"	"	35	37
9.	E63	"	"	35	37
10.	E64	"	"	35	37
11.	E67	"	"	35	37
12.	E80	"	"	30	32
13.	E81	"	"	30	32
14.	E76	Kittiwake Lake	8/1/84	35	36
15.	E77	"	"	28	29
16.	E82	"	"	28	29
17.	E84	"	"	28	29
18.	E85	"	"	35	36
19.	E88	"	"	35	36
20.	E89	"	"	28	29
21.	E90	"	"	35	36
22.	E95	"	"	35	36
23.	E96	Dip Camp	8/2/84	45	45
24.	E97	"	"	30	30
25.	E98	"	"	28	28
26.	E99	"	"	30	30
27.	E00	"	"	49	49
28.	X35	"	"	35	35
29.	X36	"	"	30	40

Table 3. (Continued)

	Colored Leg Band Number	Capture Location	Date of Capture	Estimated Age on Date Captured	Adj. Est. of Age in Days at time of transplant
30.	X37	"	"	35	35
31.	X38	"	"	28	28
32.	X39	"	"	42	42
33.	X40	"	"	28	28
34.	X41	"	"	21	21
35.	X42	"	"	28	28
36.	X43	"	"	21	21
37.	X44	"	"	35	35
38.	X45	"	"	35	35
39.	X46	"	"	28	28
40.	X47	"	"	35	35
41.	X48	"	"	30	30
42.	X49	"	"	30	30
43.	X50	"	"	42	42
44.	X51	"	"	28	28
45.	X52	"	"	28	28
46.	X53	"	"	30	30
47.	X54	"	"	28	28
48.	X55	"	"	42	42
49.	X56	"	"	30	30
50.	X57	"	"	30	30
51.	X58	"	"	21	21
52.	X59	"	"	49	49
53.	X60	"	"	30	30
54.	X61	"	"	28	28
55.	X62	"	"	49	49
56.	X63	"	"	49	49
57.	X71	"	"	49	49

* Died in Captivity

In total, 14 geese exhibited some degree of paralysis at the time of release on Agattu (Table 4). Of those 14 birds, eleven were mobile but had some impairment of movement and should have fully recovered. The three goslings which were immobile, but could stand, may also have recovered, but their chances were lower. All 14 were tubed one last time during release and grouped together before the transplant team departed the area. Ten of the 14 birds exhibiting some sign of paralysis were captured in the Dip Camp area. The Dip Camp area involved the longest hauling distance to camp and was conducted on a hot day. Although it is an excellent area to capture geese, it does have a drawback due to distance. Eleven of the 14 birds were goslings ranging in age from 28 to 49 days. The young goslings experiencing rapid growth and development at this stage in their lives are more susceptible to the shock of handling. Sixty-four percent of the birds exhib-

iting signs of paralysis at release were males. No definitive explanation can be offered for the sex bias, but it could be speculated that the aggressive territorial behavior normally associated with male birds is a factor.

Table 4. Geese Exhibiting Some Paralysis at Time of Release

	Band No.	Capture Location	Date of Capture	Age	Sex	Injury
1.	X59	Dip Camp	8/2/84	L-49 days	M	mobile but some impairment of movement
2.	E67	Extra Plateau	7/31/84	L-35 days	M	mobile but some impairment of movement
3.	E63	Extra Plateau	7/31/84	L-35 days	M	mobile but some impairment of movement
4.	E59*	Extra Plateau	7/31/84	AHY	M	mobile but some impairment of movement
5.	X65*	Dip Camp	8/2/84	AHY	F	mobile but some impairment of movement
6.	X55	Dip Camp	8/2/84	L-42	M	mobile but some impairment of movement
7.	X48	Dip Camp	8/2/84	L-30		mobile but some impairment of movement
8.	X42	Dip Camp	8/2/84	L-28	F	mobile but some impairment of movement
9.	X49	Dip Camp	8/2/84	L-30	M	immobile but could stand
10.	X56	Dip Camp	8/2/84	L-30	M	immobile but could stand
11.	X38	Dip Camp	8/2/84	L-28	F	immobile but could stand
12.	E73*	Extra Plateau	7/31/84	AHY	M	mobile but some impairment of movement
13.	E00*	Dip Camp	8/2/84	L-49	M	mobile but some impairment of movement
14.	X45	Dip Camp	8/2/84	L-35	F	mobile but some impairment of movement

* As of 12/84, only these four birds of the fourteen listed in this table have been observed on the wintering grounds.

To help reduce the stress of capture, handling and transplant, it is best to capture older goslings. Goslings of the 45 day age class probably transplant more successfully due to being near the end of their rapid growth and development period. (Forrest Lee pers. comm.). Using the 1984 average gosling age of 34 days old means that the capture effort was ten days early. It would have been best had the capture effort centered around 12 August. It is probably best if transplant efforts span two weeks, as in past years, to help bracket the time frame when most goslings are 45 days old. Gathering of the information on the age of goslings only began in 1983. The gathering of paralysis data began this year. Both efforts should help make future capture efforts more efficient and less stressful on the birds.

A copy of the banding schedule is attached as Appendix A. Buldir weather data and incidental Buldir bird, mammal and plant observations are contained in Appendix B.

RECOMMENDATIONS

1. There should be enough flexibility in the vessel schedule so that bad weather, repairs, or any other delays will not impact the transplant operation at Buldir.

2. The timing of the capture effort should be centered so as to concentrate on goslings 45 days of age.

3. The capture, banding and transplant effort on Buldir should be two weeks in length (as in past years).

4. The minimum number of goose capture personnel should be eight. Any fewer is less efficient. Ten people are considered optimal, as two people are required during the transplant.

5. The openings on the burlap goose carrying bags should be hemmed to prevent injury of geese during transporting.

6. The goose carrying cages should be reconstructed using 1/2" square welded wire to help prevent injury to the birds. Consideration should be given to making up two additional backpack units.

7. Whistles should be carried and used by all personnel involved in goose capture to help flush the birds out of dense vegetation.

8. The use of long handled nets should be considered mandatory. Their use helps prevent injury to the birds during capture.

9. To lessen the shock of capture, the geese should be immediately placed in hemmed burlap bags and the backpacks. All additional handling (such as sexing, aging, banding and tube feeding) should be done back at the base camp.

10. A double wrap of burlap material 36" high should be placed around the holding pens at Buldir and Agattu to provide visual barriers to the geese and reduce injury.

11. When the holding pens on Buldir and Agattu are not in use, both ends should be left open to prevent them from becoming traps to other wildlife throughout the year.

12. The geese should be tube-fed daily beginning the day of capture and every day thereafter including the day of transport and just prior to release. Geese suffering from paralytic shock should receive additional tube feeding, if possible.

13. Stockpiled fence posts in the Goose Creek area of Agattu Island should be removed at the next opportunity.

LITERATURE CITED

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APPENDIX A

BANDING SCHEDULES FOR ALEUTIAN CANADA GEESE TRANSPLANTED AND RELEASED AT AGATTU ISLAND, ALASKA -- 1984

Permit No. 20570

Banding Schedule 3-860 (Rev. 1973)

Master Permittee Aleutian Islands Unit Alaska Maritime NWR

—Banding Locations—

anded Buldir Island, trans- planted and released at Aga Cove, attu Island, Alaska

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INCLUSIVE BAND NOS. FROM 1127-04701 THROUGH 1127-04758 REPORT ONLY CONTIGUOUS BAND NUMBERS

PREFIX 27	COMMON NAME	AOU #	STATUS	AGE-SEX	REGION	LAT-LONG	LOC	DATE MO.—DAY—YR.
047 01	Aleutian Canada Goose	E80 172.1	613	L F	AK-503	522-1734E	A	07-31-84
" 02		E81						07-31-84
" 03		E76		M				08-01-84
" 04		E77		F				
" 05		E82						
" 06		E84						
" 07		E85						
" 08		E86		AHY				
" 09		E88		L M				
" 10		E89		F				
" 11		E90		M				
" 12		E92		AHY				
" 13		E93		F				
" 14	Aleutian Canada Goose	E94						
" 15	Replaces 887-21530			M				
16	Aleutian Canada Goose	E95		L F				08-01-84
" 17		E96						08-02-84
" 18		E97		M				
" 19		E98		F				
" 20		E99						
" 21		E00		M				
" 22		X35		F				
" 23		X36						
" 24		X37						
" 25		X38						
" 26		X39		M				
" 27		X40						
" 28		X41						
" 29		X42		F				
" 30		X43						
" 31		X44		M				
" 32		X45		F				
" 33		X46						
" 34		X47						
" 35		X48						
" 36		X49		M				
" 37		X50		F				
" 38		X51						
" 39		X52		M				
" 40		X53		F				
" 41		X54						
" 42		X55		M				
" 43		X56						
" 44		X57		F				
" 45		X58						
" 46		X59		M				
" 47		X60						
" 48		X61		F				
" 49		X62		M				
047 50	Aleutian Canada Goose	X63 172.1	613	L F	AK-503	522-1734E	A	08-02-84

bandings to: Bird Banding Laboratory, Office of Migratory Bird Management, Laurel, Md. 20811. O.M.B. No. 42-R1435.
dian bandings to: Canadian Wildlife Service, Environmental Management Service, Department of the Environment, Ottawa, Ontario, Canada. OE7. Approval expires May 31, 1981.

Master Permit No. 20570

LAND PREFIX: 127		COMMON NAME	AOU #	STATUS	AGE-SEX	REGION	LAT-LONG	LOC	DATE MO.—DAY—YR.
047	51	Aleutian Canada Goose	X64 172.1	613	AHY F	AK-503	522-1734'E	A	08-02-84
"	52		X65						
"	53		X66						
"	54		X67						
"	55		X68		M				
"	56		X69		F				
"	57		X70						
047	58	Aleutian Canada Goose	X71 172.1	613	L F	AK-503	522-1734'E	A	08-02-84
	59								
	60								
	61								
	62								
	63								
	64								
	65								
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REMARKS Geese with number designations listed on right side of "common name" indicates the number o[f] blue plastic leg band. This is authorized under Permit #20570. Blue leg bands were placed [on] the right legs of males and left legs of females (see map for release site). Birds banded on [08]-31-84 were captured at Extra Plateau, birds banded on 08-01-84 were captured at Kittiwake Lak[e] and birds banded on 08-02-84 were captured at Dip Camp. Number 15 replaced #887-21530, no color[ed] leg band was placed on this bird as it already had a blue neck collar #270 on it.

901-230

☆U.S. GOVERNMENT PRINTING OFFICE : 1980—600-97

Master Permit No. 20570

BAND PREFIX:	COMMON NAME	AOU #	STATUS	AGE-SEX	REGION	LAT-LONG	LOC	DATE MO.—DAY—YR.
51								
52								
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63								
64								
65								
66								
67								
68								
69								
70								
71								
72								
046 73	Aleutian Canada goose E51	172.1	613	L M	AK-503	522-1734E	A	07-30-84
74	E52							
75	E53							
76	E54			F				07-30-84
77	E56			AHY				07-31-84
78	Aleutian Canada goose E57	172.1	613	AHY F	AK-503	522-1734E	A	07-31-84
79	BAND DESTROYED							
80	Aleutian Canada goose E59	172.1	613	AHY M	AK-503	522-1734E	A	07-31-84
81	E60			L F				
82	E61			AHY M				
83	E62			L				
84	E63							
85	E64			F				
86	E65			AHY				
87	E66			M				
88	E67			L				
89	E68			AHY				
90	E69			F				
91	E70							
92	E71			M				
93	E72							
94	E73							
95	E74							
96	E75							
97	E55			F				
98	E50			M				
99	E78			L F				
00	Aleutian Canada goose E79	172.1	613	AHY F	AK-503	522-1734E	A	07-31-84

MARKS Geese with number designations listed on right side of "common value" indicates the number of the blue plastic leg band. This is authorized under Permit number 20570. Blue leg bands were placed on the right legs of males and left legs of females (see map for release site). Birds banded on 07-30-84 were captured at Bean Goose Lake, birds banded on 07-31-84 were captured at Extra Plateau.

901-230

☆U.S. GOVERNMENT PRINTING OFFICE : 1980—600-9

Master Permit No. 20570

Banding Schedule 3-860 (Rev. 1973)

Master Permittee Aleutian Islands Unit Alaska Maritime NWR

REPORT ONLY CONTIGUOUS BAND NUMBERS 1127-04700

—Banding Locations—

A Agattu Island, Alaska — Banded Buldir Island, transplanted and released at Aga Cove,

B

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D

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F

BAND PREFIX	COMMON NAME	AOU #	STATUS	AGE-SEX	REGION	LAT-LONG	LOC	DATE MO.—DAY
01								
02								
03								
04								
05								
06								
07								
08								
09								
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48								
49								
50								

U.S. bandings to: Bird Banding Laboratory, Office of Migratory Bird Management, Laurel, Md. 20811. O.M.B. No. 42-R1435.
Canadian bandings to: Canadian Wildlife Service, Environmental Management Service, Department of the Environment, Ottawa, Ontario, K1A 0E7. Approval expires May 31, 1981.

APPENDIX B

INCIDENTAL BIRD AND MAMMAL OBSERVATIONS AT BULDIR ISLAND, ALASKA -- 1984

INCIDENTAL BIRD AND MAMMAL OBSERVATIONS

BULDIR 7/30-8/2/84

Northern Pintail - 1 female, 7/30, Bean Goose Lake
Greater Scaup - 1 male, 7/30, Bean Goose Lake
Parasitic Jaeger - 6, 7/31, N/S Marsh
Glaucous-winged Gull - abundant, 7/31, various locations
Peregrine Falcon - 2, 7/29, North Marsh/Camp
Song Sparrow - abundant, 7/29, various locations
Lapland Longspur - 7/29
Leach's Storm Petrel - abundant, 7/29
Fork-tailed Storm Petrel - abundant, 7/29
Cassin's Auklet - 7/29
Ancient Murrelet - 1, 7/31, North Marsh/Camp
Winter Wren - 2, 8/1, NW Beach
Unidentified Waterfowl - 4, 8/1, NW Beach
Parasitic Jaeger - 5, 8/1, Kittiwake Lake
Black-legged Kittiwake - abundant, 8/1, Kittiwake Lake
Red-legged Kittiwake - 3, 8/1, Kittiwake lake
Tufted Puffin - abundant, 8/2, various locations, NW Shore and Auklet Colony
Aleutian Canada Goose - abundant, 150+, 8/2, Kittiwake Lake
Murre Species - 4, 8/2, Auklet Colony
Pigeon Guillemot - 2, 8/2, Auklet Colony
Parakeet Auklet - abundant, 8/2, Auklet Colony
Crested Auklet - abundant, 8/2, Auklet Colony
Least Auklet - abundant, 8/2, Auklet Colony
Horned Puffin - abundant, 8/2, NW Shore

Steller's Sea Lions - abundant, 8/2, NW Shore
Sea Otter - 1, 8/2, NW Shore
Harbor Seal - 2, 8/2, NW Shore