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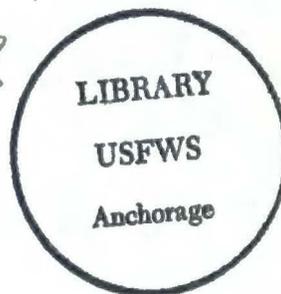
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CAPTURING, BANDING AND TRANSPLANTING OF ALEUTIAN CANADA GEESE,
BULDIR AND AGATTU ISLANDS, ALASKA - 1983

by

{ Fred Deines and Fred Zeillemaker }



Key Words: Aleutian Canada Geese, Endangered Species, Aleutian
Islands, Trap and Transplant, Buldir Island, Agattu
Island, Alaska

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DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE

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DATE 10/20/83
I.D. NO.

AUTHOR(S)
Fred Deines and Fred Zeillemaker

CITATION

OBJECTIVE

Capture 100 Aleutian Canada geese and transplant to Agattu Island to continue efforts to reestablish 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 7B FWS leg band. Within 24 to 72 hours after capture the birds were transported to Agattu via the charter vessel "Western Pacific" and released at Goose Creek in Aga Cove.

MAIN FINDINGS A total of 117 geese were captured on Buldir. Of this number, two were released unbanded on Buldir, two were banded and released on Buldir and five died in the capture efforts on Buldir. The five birds which died represents a 4 percent mortality factor for all the birds captured and transplanted. A total of 108 Aleutian Canada geese composed of 77 goslings and 31 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 to reestablish nesting populations of this subspecies on islands cleared of foxes where they historically nested prior to the introduction of foxes near the turn of the century.

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

ADDITIONAL REMARKS

UPDATES OR SUPERSEDES I.D. NO.

PROGRAM

FOR COPIES OF PUBLICATION OR REPORT CONTACT

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SPECIAL THANKS

Special appreciation must be extended to our Volunteer Biologists and Biological Technicians for their assistance in the 1983 Aleutian 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 "Western Pacific" crew members for their assistance in our goose capture and transplant efforts.

INTRODUCTION

The Aleutian Islands Unit of the Alaska Maritime National Wildlife Refuge 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 (Figure 1). To accomplish this goal, hand-reared birds were formerly transplanted to some islands in hopes that they would reestablish new nesting populations. This was not successful as the birds had no knowledge of the migration route to the 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 transplanted with them and the hand-reared birds. 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 after the 1982 program. The 1983 transplant was composed solely of wild birds captured at Buldir.

The goal for the 1983 season was to capture and transplant 100 geese from Buldir to Agattu. Every effort was made to keep the family groups together, although this was not possible in all cases. This goal was less than the number of geese captured and transplanted in 1982 (138 birds) due to a reduced period of time available necessitated by the placement of poison baits for fox control on Amukta Island, another program to benefit Aleutian Canada geese in the central Aleutians.

METHODS AND MATERIALS

Work was conducted on Buldir and Agattu Islands from 27 July to 5 August 1983. All personnel participated in some or all of the capture efforts of wild Aleutian Canada geese on Buldir Island this season. The geese captured on Buldir were transported to Agattu via the charter vessel "Western Pacific". All personnel with the exception of Becker, Deines and Zeillemaker participated on one or more goose releases at Agattu on 29 July, 31 July, or 3 August. Birds were transported and released as soon as possible after capture to reduce stress caused by handling and increase their chances for survival.

Searching for and Capturing Molting Geese

Most methods used while searching for molting geese were based on information obtained during past work on 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

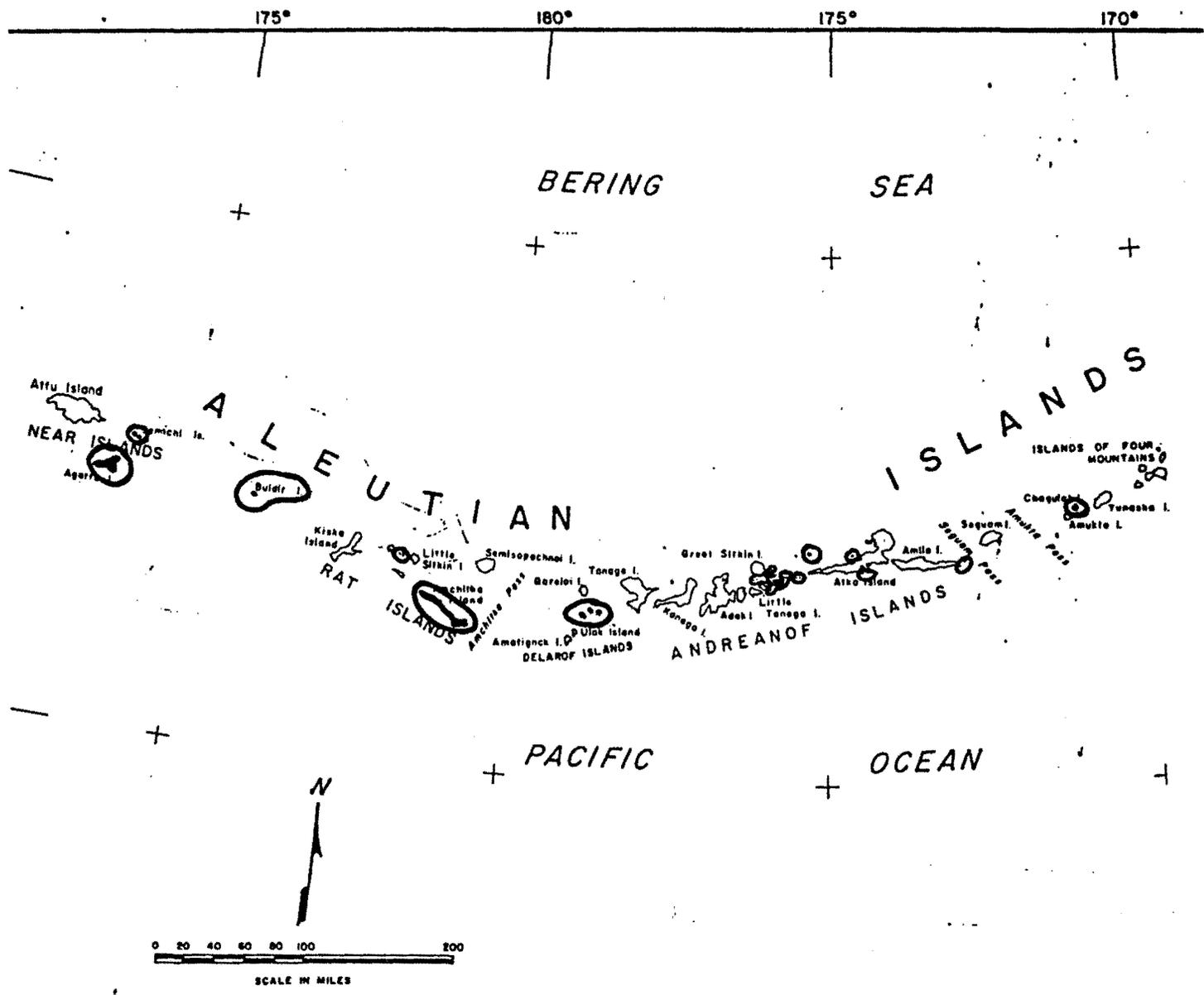


Figure 1. MAP OF THE WESTERN AND CENTRAL ALEUTIAN ISLANDS
 (Circled Islands are fox free)

community. Depending upon vegetation and topography, personnel usually walked abreast from 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 when possible to aid in catching 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 of the Geese

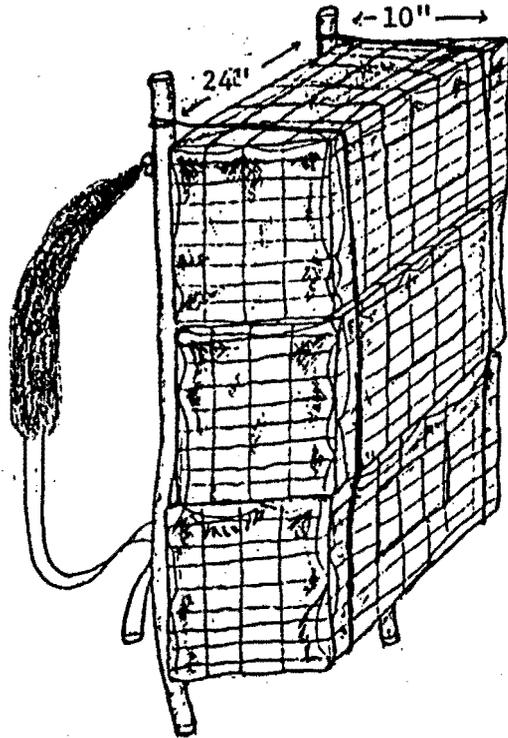
Several years of experience in capturing and transplanting geese brought about the following handling procedures which seem to place less stress on the geese and reduce injuries prior to release: 1) when a goose is captured its age and sex is determined and it is banded with a size 7B FWS leg band, 2) the date and location of capture are recorded in a field log along with the other information, 3) the bird is placed in a small burlap bag with one corner clipped to allow the head and neck to extend outside of the bag which is pre-cut with edges and seams hemmed to snugly fit the bird and help prevent injury, and 4) the end of the bag is tied with a short piece of string to limit the bird's movement.

The bagged geese were then placed in the covered welded wire cages for transport to main camp. Three wire cages were attached to each backpack frame. Each compartment could hold 3-5 adult geese or 4-6 goslings (Figure 2). Unnecessary walking with birds in the packs was avoided. When one particular area was worked for a time, the packs were usually removed while crew members chased other geese. Hiking back to camp was attempted 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 released into a fenced 5 x 15 m enclosure built with metal fence posts and poultry wire. The enclosure includes a poultry wire roof and burlap attached to the sides as a visual barrier for the birds. A small plywood table was put at one end of the pen to afford 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. As an added precaution, the captured geese were tube-fed about 15 cc of a mixture described in Table 1. The tube feeding began the day after capture and occurred once daily thereafter, including the day of transport. The birds were also fed just prior to their release on Agattu. Any birds appearing to be suffering from shock due to handling were also tube-fed the day of capture.

Just prior to transport to Agattu, the birds were taken from the holding pen and temporarily placed in 91 x 66 x 36 cm or 91 x 66 x 51 cm wooden chicken crates

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

<u>Ingredient</u>	<u>Small mix (1 qt.)</u>	<u>Large mix (1 gal.)</u>
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

that were burlap lined. The birds were then taken from the crates, tube-fed, banded with a blue plastic leg band and returned to other crates lined with Elymus arenaria to await transport and release. The blue plastic leg band was placed on the left leg of males and the right leg of females and was secured by gluing. Adults and goslings were put into separate crates to eliminate the potential of the adult birds trampling the younger ones during transport. The number of birds put into the wooden crates was also limited to 4-6 adults or 6-8 goslings to prevent injury.

Once the geese were placed in the crates, they were taken out to the charter vessel via a 13 ft Zodiac inflatable boat powered by a 25 horsepower motor. The goose crates were then securely tied to the deck of the 86 ft "Western Pacific" and covered with a heavy canvas. All efforts were made throughout handling of the geese to provide maximum protection from the elements.

Transport of the geese generally occurred late the day of capture or early the following day. Departures from Buldir Island late in the afternoon or early in the evening allowed an early morning arrival at Agattu, but the exact departure time was dependent on weather and sea conditions. The average trip took about 10 hours.

Upon arriving at Agattu Island the following morning, the geese were tube-fed on the vessel, then taken ashore to the release point via inflatable boats. All birds were released in the Goose Creek drainage of Aga Cove (Figure 3).

Prior to the release of the first group of birds, they were placed in an irregularly shaped fenced holding pen (measuring approximately 25 m x 50 m) for a couple of hours. This structure had been used in previous releases to allow the geese to reestablish family groups. The fenced holding pen proved unsatisfactory because the geese immediately attempted to escape and succeeded to do so in some cases due to the lack of a visual barrier. On subsequent releases, the wooden transport cages were gently turned on their sides and arranged in a circle with the doors opened facing into the center. The circled cages provided a visual barrier and proved to be a better holding pen than the fenced area. Once family groups were reestablished, one of the cages was moved out of the circle and the geese departed.

RESULTS AND DISCUSSION

A total of 117 Aleutian Canada geese were captured on Buldir Island (Table 2). Nine of the birds were not transplanted to Agattu for the following reasons: 1) two very young goslings were released on Buldir without bands because they were too small, 2) two goslings were banded with FWS metal bands only and released on Buldir because they were too young for colored bands and their parents were not captured, and 3) four goslings and one adult goose died due to injuries sustained during or following capture. The five birds that died represented a four percent mortality rate for all birds captured.

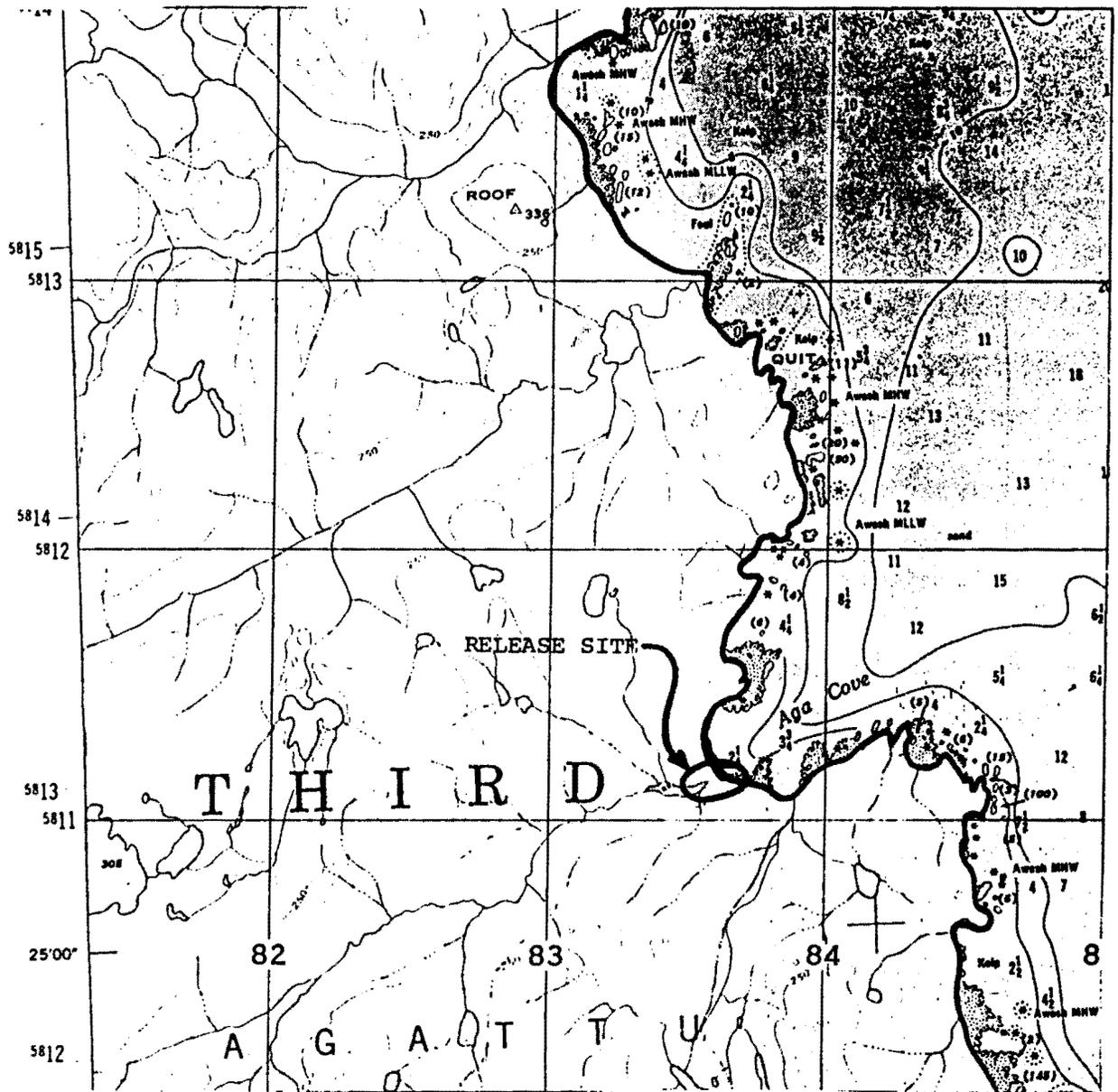


Figure 3. 1983 GOOSE RELEASE SITE AT AGATTU ISLAND

TABLE 2

RESULTS OF CAPTURE, BANDING AND TRANSPLANT EFFORTS ON ALEUTIAN CANADA GEESE FROM BULDIR ISLAND TO AGATTU ISLAND, 1983

Capture Date	*Capture Location	Transport Date	# Of Geese Captured and Banded			# Of Geese Banded And Released-Buldir			Mortality				# Geese Successfully Transp. to Agattu		
			AHY	LOC	TOTAL	AHY	LOC	TOTAL	Buldir		Agattu		AHY	LOC	TOTAL
7-28-83	A	7-29-83	7	22	29	0	0	0	0	2	0	0	7	20	27
7-29-83	B	7-31-83	3	3	6	0	0	0	1	0	0	0	2	3	5
7-30-83	C	7-31-83	9	17	26 **	0	2	2	0	0	0	0	9	13	22 ***
7-31-83	D	8-3-83	5	18	23	0	0	0	0	1	0	0	5	17	22
8-02-83	E	8-3-83	<u>8</u>	<u>25</u>	<u>33</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>8</u>	<u>24</u>	<u>32</u>
TOTAL			32	85	117	0	2	2	1	4	0	0	31	77	108

* A = Kittiwake Lake

B = Goose Lake

C = Extra Plateau

D = Kittiwake Lake

E = Kittiwake Lake and Dip Camp ****

** Includes two goslings which were captured and released on Buldir with no bands because of their small size.

*** Includes two birds previously banded.

**** Kittiwake Lake accounted for 4 adult birds, one of which was previously banded.

A total of 108 Aleutian Canada geese were successfully transplanted to and released on Agattu Island. This total was composed of 77 goslings and 31 adults (Table 2). The sexes of the birds released on Agattu were 37 male goslings, 40 female goslings, 15 male adults and 16 female adults.

Three of the birds transplanted to Agattu were recaptures. Their colored leg bands were red 356, blue A67 and blue X06. Number 356 was a second year male banded at Crescent City on 27 March 1983. The bird marked with number A67 is a local male captured at Buldir and released on Agattu in 1982. Band X06 is on a hand-reared local female from Northern Prairie Wildlife Research Center, Jamestown, North Dakota, but was also released on Agattu in 1982.

Initial capture efforts in the Glissade Valley area proved fruitless and frustrating. No birds were captured in this area and the few adults that were observed flew away. Persistence paid off; however, as later that day 29 birds were captured at Kittiwake Lake.

Unlike last year, adults capable of flight were observed throughout the capture effort, suggesting they had not yet molted and goslings appeared to be younger overall with fewer "cheek patch" individuals being captured than last year. Comparison of the age of goslings is speculation; however, since they were not specifically aged during the 1982 banding operations. The above observations suggest a late nesting year in 1983. A listing of all goslings captured and aged this year is found in Table 3. The overall average gosling age was 26 days. It is interesting to note that goslings captured on the south side of the island in the Dip Camp area averaged 10 days older than all other goslings captured (35.8 days as compared to 25.7 days).

Kittiwake Lake was by far the most productive area for capturing geese this year (Figure 4). Three days of capture effort produced 29, 23 and 4 geese respectively. On the first day an estimated 300 geese were observed on the lake. Soon after the capture team was detected by the geese, most of the birds escaped out the opposite end of the lake. On each subsequent visit to Kittiwake Lake fewer birds were observed and captured, even though a greater amount of effort was expended by the capture team. On the second visit to Kittiwake Lake, 2 individuals used whistles and yelled while moving along the shoreline to drive the birds toward the end of the lake where capture personnel were hidden in the tall vegetation. This procedure was repeated 3 times, with the number of birds captured decreasing each time. On the last visit to Kittiwake Lake only 4 birds were captured. One biologist with a wet suit and raft and 3 biologists on foot along the shoreline attempted to drive the birds to capture personnel once again hidden in the vegetation, but the birds had been educated during our previous efforts and were extremely wary of the situation. Although this was the least successful capture attempt, it would probably have been considerably more successful with 2 people in the water. Such a technique would have been exciting during the first capture attempts. The large number of birds in this area and its close proximity to camp make it an excellent capture area when weather (fog) conditions are favorable.

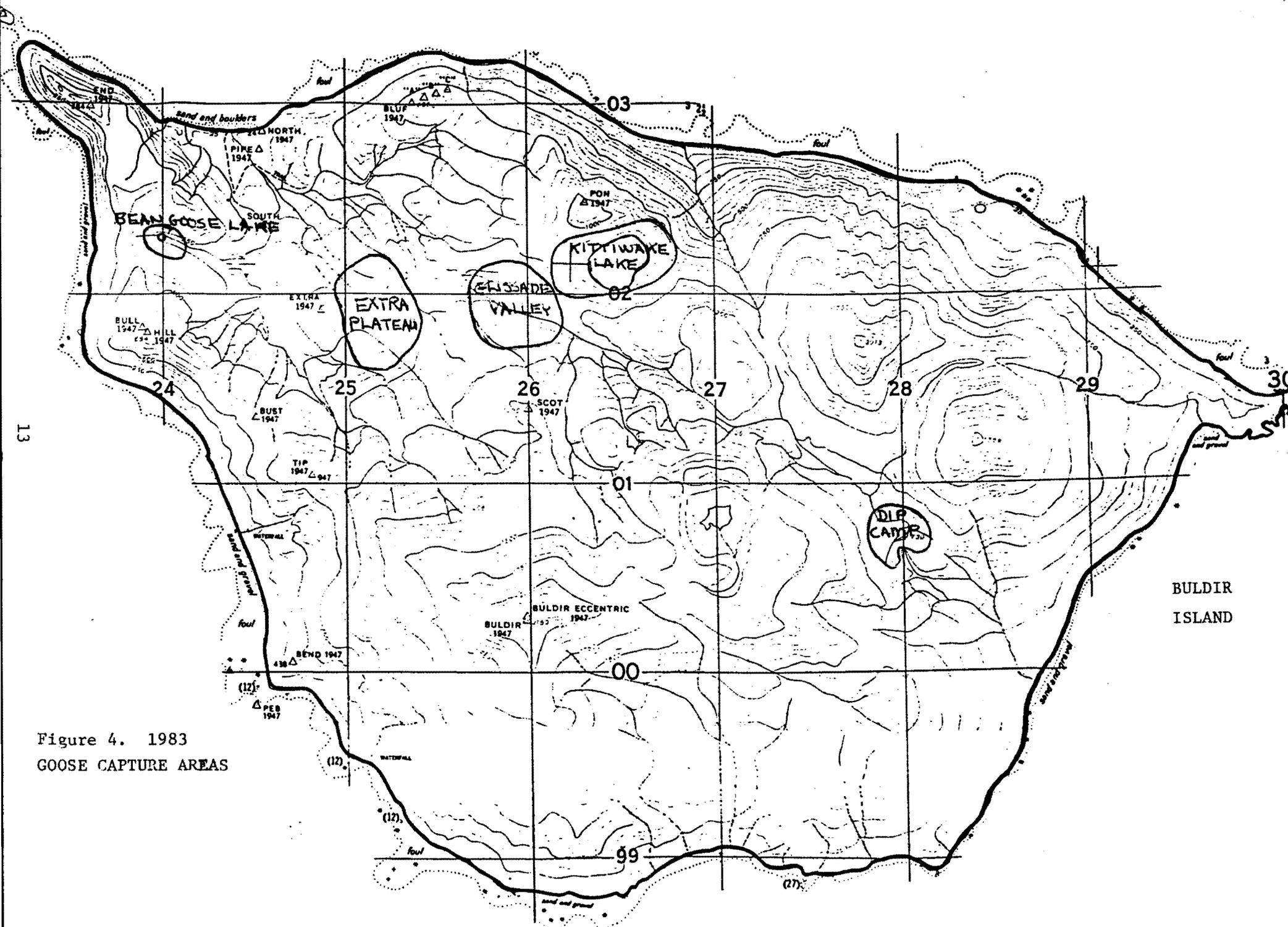


TABLE 3

ESTIMATED AGE OF ALL GOSLINGS CAPTURED AFTER FIRST DAY AND COLOR BANDED

	<u>Colored Leg Band Number</u>	<u>Date Captured</u>	<u>Estimate of Age In Days</u>
1.	C71	7/29/83	16
2.	C72	7/29/83	16
3.	C73	7/29/83	16
4.	C74	7/29/83	28
5.	C00	7/30/83	27
6.	C76	7/30/83	25
7.	C77	7/30/83	29
8.	C78	7/30/83	28
9.	C82	7/30/83	28
10.	C83	7/30/83	26
11.	C84	7/30/83	26
12.	C94	7/30/83	14
13.	C86	7/30/83	14
14.	C91	7/30/83	10
15.	C92	7/30/83	10
16.	C93	7/30/83	30
17.	C96	7/31/83	15
18.	C97	7/31/83	21
19.	C98	7/31/83	22
20.	E02	7/31/83	21
21.	E03	7/31/83	16
22.	E06	7/31/83	21
23.	E07	7/31/83	28
24.	E08	7/31/83	25
25.	E09	7/31/83	20
26.	E10	7/31/83	21
27.	E11	7/31/83	20
28.	E12	7/31/83	24
29.	E13	7/31/83	25
30.	E14	7/31/83	22
31.	E16	7/31/83	30
32.	E17	7/31/83	21
33.	E18	7/31/83	22
34.	E22	8/02/83	16
35.	E23	8/02/83	17
36.	E24	8/02/83	10
37.	E25	8/02/83	42
38.	E26	8/02/83	35
39.	E27	8/02/83	42
40.	E28	8/02/83	39
41.	E29	8/02/83	45
42.	E30	8/02/83	45
43.	E31	8/02/83	45
44.	E33	8/02/83	35
45.	E34	8/02/83	28

Note: Table continues on next page

TABLE 3
(Continued)
ESTIMATED AGE OF ALL GOSLINGS CAPTURED AFTER FIRST DAY AND COLOR BANDED

	<u>Colored Leg Band Number</u>	<u>Date Captured</u>	<u>Estimate of Age In Days</u>
46.	E35	8/02/83	39
47.	E36	8/02/83	48
48.	E38	8/02/83	49
49.	E39	8/02/83	48
50.	E40	8/02/83	38
51.	E41	8/02/83	28
52.	E42	8/02/83	21
53.	E43	8/02/83	43
54.	E44	8/02/83	15
55.	E44	8/02/83	15
56.	E46	8/02/83	14
57.	E47	8/02/83	10

The Dip Camp area was the second most productive area with 28 geese being captured there. The only drawback to this and other potentially productive areas, such as Dry Lake and Steep Creek, is locating and working them in the sometimes thick fog after travelling long distances and the required long hauling distances back to camp.

Even though nearly all the geese encountered were incapable of flight, they were able to move quite rapidly over the rough Buldir 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 we saw them. The only view of these birds was of them proceeding out of the area with all expediency. They were impossible to capture after such a head start. Our efforts to circle around ahead of them and capture them proved fruitless. Our capture efforts were most successful when we searched the zone where the tall vegetation (Elymys-Umbell) gave way to the short vegetation (Mossy-Willow).

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

Five geese died from the capture effort. Four were young birds which were found dead in the packs after transporting them back to camp. One adult died in the holding pen after being returned to camp. These birds probably died from injuries sustained during capture and not from being transported. Most exhibited some type of visual or audial indication of injuries sustained during capture. As an example, a gosling was noticed to be wheezing and spitting up some blood immediately after capture. Mandatory use of long handled capture nets by all team members should help to lessen injury problems in the future.

All geese captured and banded on Buldir were transplanted to Agattu as quickly as the weather permitted. This was considered an important factor in the low mortality experienced during the transplant operation. Eighty-six individual birds were transplanted to Agattu within 24 hours after capture with the remaining 22 birds moved within 72 hours. The latter were delayed due to weather.

A selection of photographs depicting this season's capture, banding and transplant effort is in Appendix B. A video tape of this year's operation was also made by Dan Benfield of the Anchorage regional endangered species office. Weather data and incidental bird, mammal and plant observations from Buldir Island are contained in Appendix C.

RECOMMENDATIONS

1. The minimum number of goose capture personnel should be six; any fewer is not as efficient. Eight to ten people should be considered optimal, especially since two people are required to transplant the geese via boat to Agattu.
2. The use of nets should be viewed as mandatory because their use helps prevent injury to the birds.
3. Six backpacks should be considered the optimum number to carry geese.
4. The openings on the burlap goose carrying bags should be hemmed to prevent injury of geese during transporting.
5. FWS metal bands should be attached in the field and the colored plastic bands should be attached just prior to transport.
6. The geese should be tube-fed daily beginning one day after capture including the day of transport and just prior to release. Geese suffering from paralytic shock should be tube-fed when captured.
7. Unnecessary fencing from the Goose Creek area of Agattu should be removed and the materials used to repair and/or modify the small holding pen. This would remove all man made barriers in the Goose Creek area. Any excess material should be stored at the cabin or removed from the island.
8. When the holding pens on Buldir and Agattu are not in use, both ends should be left open to prevent them from becoming a trap to other wildlife throughout the year.
9. Whistles should be carried and used by all personnel involved in the goose capture to help flush the birds out of the dense vegetation.
10. The goose carrying cages should be reconstructed using 1/2 in sq welded wire to help prevent injury to the birds.
11. A double wrap of burlap material 36 in high should be placed around the holding pens at Buldir and Agattu to provide visual barriers to the geese and reduce injury. The burlap should be taken down after each season and stored for use the next year.

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APPENDIX A

1983 BANDING SCHEDULES FOR CAPTURED ALEUTIAN
CANADA GEESE TRANSPLANTED AND RELEASED ON AGATTU ISLAND, ALASKA

Banded Buldir Island; transported and released to Aga Cove, Agattu Island, AK

B E

C F

BAND PREFIX	COMMON NAME	AOU #	STATUS	AGE-SEX	REGION	LAT-LONG	LOC	DATE MO.—DAY—YR.
1127 ←								
046 01	Aleutian Canada Goose	C00	172.1	613	L F	Ak-503	522-1734W	A 07-30-83
02	C76							
03	C77							
04	C78							
05	C79			AHY M				
06	C80							
07	C81							
08	C82			L M				
09	C83							
10	C84							
11	C94							
12	C86							
13	C95			AHY				
14	C88							
15	C89							
16	C90							
17	C91			L M				
18	C92							
19	C93							
20	C96							07-31-83
21	C97							
22	C98							
23	C99			AHY M				
24	E01							
25	E02			L M				
26	E03							
27	E19			AHY M				08-02-83
28	E04			AHY M				07-31-83
29	E05							
30	E06			L				
31	E07							
32	E08							
33	E09							
34	E10							
35	E11							
36	E12							
37	E13							
38	E14							
39	E15			AHY				
40	E16			L				
41	E17							
42	E18							
43	E20			AHY				08-02-83
44	E21							
45	E22			L F				
46	E23							
47	E24							
48	E25							
49	E26							
50	Aleutian Canada Goose	E27	172.1	613	F	Ak-503	522-1734W	A 08-02-83

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, Canada. KIA OE7. Approval expires May 31, 1981.

AND PREFIX: 27	COMMON NAME	ADU #	STATUS	AGE-SEX	REGION	LAT-LONG	LOC	DATE MO.—DAY—YR.
51								
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012 66	Aleutian Canada Goose	C39 172.1	613	L F	AK-503	522-1734W	A	07-28-83
67		C40						
68		C41						
69		C42						
70		C43						
71		C44						
72		C45						
73		C46		AHY F				
74		C47		L M				
75		C48						
76		C49						
77		C50						
78		C51						
79		C52						
80		C67						
81		C54		AHY M				07-29-83
82		C55		L				07-28-83
83		C56						
84		C57						
85		C58						
86		C59						
87		C60		AHY F				
88		C61						
89		C62		L				
90		C63		AHY M				
91		C64						
92		C65						
93		C66						
94			300	L M		522-1755W	B	07-30-83
95		C69	613	AHY F		522-1734W	A	07-29-83
96		C71		L				
97		C72						
98		C73						
99			300			522-1755W	B	07-30-83
00	Aleutian Canada Goose	C74 172.1	613	L F	AK-503	522-1734W	A	07-30-83

REMARKS: Geese with number designations listed on the right side of the "Common Name" column indicates the number of the blue plastic leg band. This is authorized under permit #20570. Blue leg bands were placed on the left leg of males and right legs of females (see map for site of release point) Birds banded on 07-28-83 were captured at Kittiwake Lake, birds banded on 07-29-83 were captured at Bean Goose Lake, and birds banded on 07-30-83 were captured at Extra Plateau.

Banding Locations—
A Banded Buldir Island; Transported
and released to Aga Cove, Agattu Island, AK
Banded and Released at Buldir Island, AK
E
F

BAND PREFIX ←	COMMON NAME	AOU #	STATUS	AGE-SEX	REGION	LAT-LONG	LOC	DATE
								MO.—DAY—YR.
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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, Canada.
KIA OE7. Approval expires May 31, 1981.

APPENDIX B

1983 INCIDENTAL WEATHER, BIRD
MAMMAL, AND PLANT OBSERVATIONS
MADE ON BULDIR

1983 INCIDENTAL WEATHER OBSERVATIONS MADE ON BULDIR

<u>DATE</u>	<u>TEMPERATURE</u>		<u>NOTES</u>
	<u>LO</u>	<u>HI</u>	
7/27	-	61	Fog in AM, sunny periods in PM, light breeze, delightful day, little surf.
7/28	41	64	Thin fog with sun in AM (barometer 29.80 at 0845), PM perfectly clear, light breeze in late afternoon for few hours only, very smooth surf.
7/29	42	63	Patchy AM fog, breeze from the NE at 6 mph with gusts of 12 mph, patchy PM fog, wind NE at 8 mph with gusts of 12 mph, slight increase in waves and swell.
7/30	44	63	Thin AM overcast, very light NE breeze, little swell, patches of sun in early PM, overcast later PM, light NE wind which died during the evening.
7/31	46	59	AM overcast (ceiling 700'), wind NE at 10 mph and gusts of 20, intermittent light drizzle early, then high thin cloud layer, wind changed to SE by 1100, PM overcast and fog, wind S-SE at 7 mph with gusts to 23 mph.
8/1	49	59	Strong winds and intermittent showers in AM, cloudy SE wind at 25 mph with gusts of 39 mph, many williwaws and water swirls, spotty sun at noon, winds SE at 20 mph with gusts of 40 to 50 mph (70 mph gusts on boat), low fog all afternoon with gusty winds.
8/2	48	59	AM foggy, wind SE at 15 mph with gusts of 22 mph, surf OK, partly sunny, high wind diminishing thru PM, little surf, low patchy fog in PM.
8/3	45	62	AM sunny, PM sunny, light occasional SE breezes.
8/4	43	67	AM with high overcast, then clear thru mid afternoon, drizzle began at 1800 and turned to rain during evening.
8/5	43	-	Driving drizzle!!!

INCIDENTAL BIRD AND MAMMAL OBSERVATIONS

BULDIR 7/27-8/5/83

- *Laysan Albatross - 1
- *Fork Tailed Storm Petrel - ∞
- *Leach's Storm Petrel - ∞
- Pelagic Cormorant - 2, 7/27, Auklet Colony
- Red Faced Cormorant - 1, 7/29, Auklet Colony
- Canada Goose - 300+, 7/28, Kittiwake Lake
- Mallard - 1 ♂, 7/29, Bean Goose Pond
- Northern Pintail - 1 ♀, 7/29, Bean Goose Pond
- Green Winged Teal - 1 ♂, 7/29, Bean Goose Pond
- Common Eider - 5, 8/4, NW Beach
- Bald Eagle - 1 adult + 1 immature, North Marsh
- Peregrine Falcon - 4+, Kittiwake Lake - NW Cape
- Whimbrel - 1, 8/3, NW Beach
- Ruddy Turnstone - 6, 8/3, NW Shore
- Parasitic Jaeger - 14+ (including 1 light phase), various locations
- *Glaucous-Winged Gull - ∞, various locations
- *Black-Legged Kittiwake - 200+, 7/28, Kittiwake Lake
- *Red-Legged Kittiwake - 1
- Murre, sp - 2, 7/29, Auklet Colony
- *Thick Billed Murre
- Pigeon Guillemot - 4, 7/27-29, NW Coast Rocks
- Cassins Auklet - 1, 7/28, Camp
- *Parakeet Auklet - ∞, Auklet Colony
- *Crested Auklet - ∞, 7/27-29, Auklet Colony
- *Least Auklet - ∞, 7/27-29, Auklet Colony
- *Horned Puffin - ∞, NW Shore
- *Tufted Puffin - ∞, NW Shore
- Common Raven - 4, 7/28-30, overhead
- Winter Wren - ∞, NW Shore
- Song Sparrow - ∞, various locations
- Lapland Longspur - ∞, various locations
- Snow Bunting - 6+, 8/2, Dip Camp
- Rosy Finch - 10+, 7/27-8/3 NW Shore

- Sea Lion - 300, NW Shore
- Harbor Seal - 4, NW Shore
- Sea Otter - 4, NW Shore

*(Also) seen within 2 miles of N Shore of Buldir Island

1983 (7/28-8/5) INCIDENTAL PLANT

OBSERVATIONS MADE ON BULDIR

SPECIES OBSERVED

Chocolate Lily
Bog Orchis
Smartweed (Polygonum Viviparum)
Spring Beauty
Cress (Cardamine Sp.)
Wild Geranium
Cow Parsnip
Wild Parsley (Angelica Spp.)
Western Buttercup
Dwarf Dogwood/Bunchberry
Pixie Eyes/Primrose
Star Flower
Aleutian Speedwell (Veronica Sp.)
Aster Sp.
Coastal Fleabane (Fingeron)
Unalaska Arnica
Seabeach Senecio
Equisetum Arvense (Horsetail)
Fern Sp.
Watermelon Plant (Stredpopus Amplexifolius)(Wind Cucumber)
Willow (Salix Arctica)
Yarrow
Sagebrush (Artemisia Unalaskensis)
Elymus Mollis
Strawberry
Crawberry (Empetrum Nigrum)
Saxifreige
Pearly Everlasting
Viola Langsdorffii
Geum
Potentilla sp.
Vagoon Berry
Fireweed
Bistort
Heath (Yellow heather)
Phlenm
Spagnum Moss

APPENDIX C

SELECTED PHOTOS OF 1983 CAPTURE, BANDING
AND TRANSPLANT EFFORT OF ALEUTIAN CANADA GEESE
FROM BULDIR TO AGATTU

Library
U.S. Fish & Wildlife Service
1011 E. Tudor Road
Anchorage, Alaska 99503