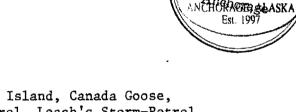


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TRIP REPORT: BULDIR ISLAND - JUNE 1984,

By

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975 FWLB 0775

Key Words: Buldir Island, Shemya Island, Canada Goose, Fork-tailed Storm-Petrel, Leach's Storm-Petrel, Crested Auklet, Least Auklet, Whiskered Auklet, Murres, Kittiwakes, Clutch Size, Nesting Phenology

# July 13, 1984

Alaska Field Station Denver Wildlife Research Center U.S. Fish and Wildlife Service 1011 E. Tudor Road Anchorage, Alaska

# ARLIS

Alaska Resources Library & Information Services Anchorage Alaska We visited Buldir Island from 8 June to 25 June with the primary purpose of collecting Aleutian Canada Goose eggs for a study of the taxonomic affinities of three populations of Canada Geese nesting on maritime islands in Alaska. In addition to collecting eggs, we also censused the seabirds nesting on Middle and Outer Rocks, censused the storm-petrels in four plots established in the mid 1970's, ran a beached bird survey and a survey of beached garbage, walked the small bird transect and set up two time lapse cameras in the Main Talus to monitor Crested and Least Auklet attendance patterns.

#### Itinerary

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4 June, 1330: Arrive Shemya
7 June, 1900: Board USFWS Charter Vessel, VESTFJORD
7 June, 1900: Arrive Aga Cove, Agattu to offload supplies and exchange personnel.
8 June, 0900: Arrive Buldir and offload supplies and personnel
25 June, 1930: Depart Buldir, board VESTFJORD
26 June, 0800: Arrive Agattu, break camp, board personnel and supplies
26 June, 1300: Arrive Shemya, dock alongside fuel barge and tug
26 June, 1900: Move to south side of Shemya because of weather
27 June, 0930: Transport Air Force and Raytheon personnel to Alaid to service tower
27 June, 1700: Arrive southside of Shemya, offload all military and civilian personnel including those of USFWS.
28 June, 1630: Depart Shemya
28 June, 1930: Arrive Anchorage

We found 26 Aleutian Canada Goose nests with eggs between 8 June and 24 June. Intensive searches for nests occurred on 8 June (slopes above camp and seaward to west facing shore), 9 June (Tip Valley) and 10 June (Petrel Valley west to Main Talus). Additional searches for nests occurred periodically throughout our stay on Buldir Island. This effort was concentrated on the seaward slopes from Bull Hill to the north slope of Northwest Point although one largely unsuccessful excursion to the slopes east of Gull Plateau was made on 20 June.

The number of eggs in each nest ranged from 3 to 8 ( $\overline{X}$  = 5.1, S.D. = 1.2; Table 1). This is similar to the data recorded by Byrd and Woolington (1983). We floated one or two eggs from almost all nests to determine stage of incubation and to determine which nests to take eggs later during our stay on the island. Aleutian Canada Goose nests began to hatch sometime during the 2nd week of June. On 13 June at Northwest Point we found 1 nest with 5 goslings and an unhatched egg, another nest with 4 recently hatched goslings, a group of 4 small goslings out of the nest and later a lone gosling. We estimated that some of the goslings could have hatched on or slightly before 11 June. The latest chick to hatch that we are aware was in captivity, on 4 July. Byrd and Woolington (1983) found that hatching occurred from 19 June to 6 July in 1974 and 1976 and from 28 June to 9 July in 1975. Thus the nesting phenology of Aleutian Canada Goose in 1984 was earlier than previous years.

I have marked the locations of all nests and groups of goslings we found on a map for your information (Figure 1).

Because nests began to hatch early in our stay, we were faced with a quandry of whether to take eggs early or wait until just before we left. We decided on the latter approach despite the chance of most of our nests hatching. We pulled two eggs on 20 June and and single hatching eggs on 21, 22 and 23 June. Nine additional eggs were taken on 24 June. As expected, many of the eggs in our marked nests had hatched by the time of our departure. Fortunately, we found two additional nests during our nest check on 24 June. Incubating eggs on the island was hampered by converting the 12 volt current of our battery to 110 volt current required by the incubator. We used a converter but found that it drained considerable power from the battery. We obtained a maximum of 4 hours of power before the battery needed recharging. This was the major factor in our decision to collect most eggs on the last day of our stay. Table 1 summarizes the fates and progress of our marked nests.

After finding each nest, we covered the eggs with down and grass to hide them from Glaucous-winged Gulls. Only one nest of the 26 we found was deserted by the incubating goose. At this writing, we have 6 chicks and 1 egg. The last chick to hatch did so on 4 July. One chick died during its first day probably from dehydration. Another chick died during hatching. Six eggs did not hatch and began rotting. The long carries from the nest to the cabin, two transfers in zodiacs in rough seas and a long plane ride may have taken a toll on the embryos. Fates of all eggs we collected on Buldir Island are summarized in Table 2. We strongly recommend that if future collections are made of geese on Buldir Island, that investigators be allowed to take newly hatched chicks. Canada Goose goslings are very hardy, transport well and are easy to raise.

We did not make detailed observations of Aleutian Canada Goose nesting habitat. The densest nesting concentration we found was in Tip Valley where we found 12 nests. All of the nests in Tip Valley were located on southerly facing slopes and all but one nest were located on slopes dominated by beach rye grass (Elymus arenarius). The exception was a nest located in an umbel community that emerged from snow cover much later than areas at lower elevation. Many of the nests at Tip Valley were on gentle slopes which contrasted with nests found elsewhere on Buldir Island which with few exceptions were located on steep In all nesting areas, beach rye was the dominant vegetation with a slopes. mixed beach rye-umbel community of secondary importance. After hatching however, our limited observations suggest that Canada Geese move into the mixed umbel community. Undoubtedly this occurred because the umbel community supported a greater variety of forbes favored by geese as food. We allowed two of our goslings to forage in the vicinity of camp and found that they preferred to eat a small crucifer (probably Cardamine umbellata) and a low growing saxifrage (possibly Saxifraga aleutica). Doug Forsell (pers. comm.) found that Semidi Island goslings hatched in captivity readily ate spring beauty (Claytonia sarmentosa) when it was offered but our birds ignored this species when alternatives were available.

#### Seabirds

We examined the four storm-petrel biology plots established on Buldir Island in the mid 1970's. Individual marked burrows were difficult to find and we frequently marked burrows with our own tags. For lack of another marking system, we used aluminum tags wired to nails and placed these at the mouths of the burrows as was done previously. If the refuge wants to monitor individual burrows, we suggest that an alternative burrow marking system be developed that is easier to read and more permanent. Treated 1"x1" wooden stakes upon which numbers have been engraved or aluminum poles would make adequate permanent burrow markers. However, if the refuge staff is not interested in what is in individual burrows but only in the plots as a whole, the permanent marking of individual burrows is of less importance. Whatever is decided about marking burrows, the four biology plots should be censused in the future, perhaps on a three year rotation, because of the long-term banding that has occurred there.

We reached into every burrow in the four plots and determined the presence or absence of birds and eggs. We banded all storm-petrels and replaced bands on those with worn bands. In several instances we were unable to read bands we removed from storm-petrels because of excessive wear and corrosion. These will be sent to the bird banding laboratory for reading. Results of our storm-petrel work are summarized (Tables 3-6) and burrow locations are mapped (Figures 2-5).

We attempted to census Middle Rock and Outer Rock on 17 June. Our survey efforts at East Cape were hampered by almost constant fog, at least when we attempted to visit that end of the island. Middle and Outer Rock were censused from a zodiac. We each counted birds on a section of cliff and if the counts were similar, averaged the two counts. If the counts were widely divergent, we recounted that section until similar numbers were obtained. We believe our counts at Middle Rock are reasonably accurate (Table 7, Figure 6) and they were substantially greater than counts made in 1974 and 1975. At Outer Rock, however, our counts were hampered by rougher seas and the confusion of counting large numbers of densely packed birds. We had great difficulty in arriving at similar numbers for sub-areas on Outer Rock. In addition, we had difficulty in distinguishing the two kittiwake species. Finally in frustration, DeGange blocked birds in groups of ten and obtained approximate counts of birds on the east and north side of Outer Rock (Table 8, Figure 6). Our counts for Outer Rock were lower than those made in 1976, however, the accuracy of our counts is suspect.

#### Auklets

DeGange set up two time lapse movie cameras at the main talus in order to monitor auklet attendance patterns. Films will be handed over to Art Sowls (RO-Wildlife Assistance) for analysis. We used one Canon and one Sankyo Super 8mm movie cameras. These cameras necessitate the use of intervalometers to regulate the frequency frames are exposed. A Canon intervalometer was used with the Canon camera. It allowed frames to be exposed at the maximum rate of one per minute. The Sankyo camera took an intervalometer provided on contract to the RO by personnel at Anchorage Community College. This unit could expose frames at intervals of 2,4,8,16,32 and 64 minutes. Initially we used the 2 minute interval on the Sankyo camera until just before we departed and then changed to one frame each 8 minutes to extend the life of the film in the camera. These data will be used to provide a comparison of auklet attendance patterns with those at St. Matthew Island. The technique's use as a tool for monitoring seabird populations and estimating populations awaits the results of Art Sowls and others who are continuing their studies on St. Matthew Island.

## Beached Bird and Garbage Surveys

On 16 June, DeGange walked the sand and boulder beach at Northwest Bight and catalogued all the debris found there. Over 800 items were found on the beach (Table 9). Predominant types of debris included Japanese gillnet floats, plastic fragments, plastic bottles and trawl fragments.

A beached bird survey was conducted on 18 June. The same stretch of beach walked for the debris survey was walked. Twenty-three individuals of seven species were found on the beach (Table 10). Glaucous-winged Gulls were the predominant species with 14 individuals recorded. Several of these gulls perished during our stay on Buldir Island and it was not unusual to see one or more gulls in a weakened state on the beach or even closer to the cabin. Three additional gulls died on the days following the beached bird survey. Although the die-off of gulls was small it was conspicuous. We have never seen a similar incident in several years working in coastal Alaska. DeGange autopsied one gull on 17 June but could find nothing noteworthy in its gross morphology. The bird had no fat and its stomach was empty. All the organs appeared normal. We were unable to determine the cause of death. On 25 June we collected two gulls in weakened condition and froze them aboard the VESTFJORD. They will be sent to the National Wildlife Health Laboratory in Madison, Wisconsin this fall for autopsy.

### Small Bird Transect

DeGange walked the small bird transect on three occasions. The transect was along the beach at Northwest Bight and extended from the western edge of the bluff to Crested Point. All passerine birds observed on transect and those birds heard singing were included (Table 11).

. Status	Last Date Examined	No. Eggs	Date Found	Nest No.
hatched	24 June	8	8 June	1
incubating	24 June	6	9 June	2
incubating	24 June	5.	9 June	3
hatched	24 June	6	9 June	4
hatched	24 June	7	9 June	5
hatched	24 June	4	9 June	6
incubating	24 June	6	9 June	7
hatched	24 June	5	9 June	8
hatched	24 June	7	9 June	9
hatched	24 June	3	9 June	10
hatched	24 June	5	9 June	11
empty	24 June	5	9 June	12
hatched	24 June	7	10 June	13
hatched	24 June	6	10 June	14
hatched	24 June	5	10 June	15
hatching	21 June	5	10 June	16
incubating	24 June	3	10 June	17
hatching	22 June	6	10 June	18
incubating	24 June	5	10 June	19
deserted	20 June	4	13 June	20
hatching	23 June	4	13 June	21
incubating	24 June	5	13 June	22
	Not Examined	5	16 June	23
incubating	24 June	4	16 June	24
incubating	20 June	4	20 June	25
incubating	24 June	4.	24 June	26

Table 1. Fates and progress of Canada Goose nests found on Buldir Island.

Egg No.	Fate	Date Hatched
• 2	Died Hatching	26 June
3	Chick Died	25 June
3ъ	Chick	25 June
7	Chick	30 June
16	Chick	21 June
17	Chick	4 July
18	Chick	22 June
19	Embryo Died	
21	Chick	23 June
22	Addled	
25	Addled	· · · · · · · · · · · · · · · · · · ·
25b	Addled	
26	Addled	
26	Addled	

Table 2. Fate of Eggs taken from Buldir Island, June 1984

Burrow No.	Species	Band No.	Replaced Band No.	Egg
6	Empty - G	cown Over	· •	
11	Non-exist			
OR-1	FTSP	1171-37681		Yes
4	FTSP	1171-37682	unreadable	?
OR-2	FTSP	1121-84387	not replaced	Yes
78-09	Empty		_	
84-1	??			Yes
12	Empty			
В	Caved In ·	- No Burrow		
84-2	FTSP	1171-37683		No
	FTSP	1171-37684		No
84-3	??	,		Yes
22	Empty			
19	Empty with	n fresh digging		
С	FTSP	1171-37685		Yes
OR-3	??			Yes
#1	Caved In ·	- No burrow		
78-06	FTSP	1171-37686	1211-84354	Yes
OR-4	FTSP	1171-37687	·	Yes
84-4	FTSP	1171-37688		Yes
84-5	Entrance of	only		
32	Empty			
37	FTSP	1171-37689		Yes
26	No burrow			
25	FTSP	1171-06605	Not Replaced	Yes
3-13	Empty with	n old egg		

Table 3. Results of burrow examinations in Biology Plot 1 - Along creek north of South Marsh, 11 June 1984.

Burrow No.	Species	Band No.	Replaced Band No.	Egg
84-1	??		یر <sub>ک</sub> ے میں ایک اور میں میں میں کا کہ میں ایک اور میں کر میں ایک اور میں ایک اور میں ایک اور میں ایک اور میں ایک بالا ایک ایک ایک ایک ایک ایک ایک ایک ایک ای	Yes
84-2	FTSP	1171-37690		?
84-3	LESP	1171-37691	1171-06621	Yes
84-4	LESP	1171-37692		No
84-5	LESP	1171-37693		?
84-6	LESP	1171-37694	1171-06635	Yes
Pink Stake	ANMU	under single menne		2 eggs
84-7	LESP	1171-37695		Yes
84-8 (old tag)	FTSP	1171-37696		Yes
025	No burrow			
84-9	FTSP	1171-37697		?
78-15AB	??			Yes
1-24	FTSP	1171-37698	1211-84374	Yes
84-10	LESP	1171-37700		?
84-11	FTSP	1171-38101	1211-84377	?
C-6	LESP	1171-38102		Yes
84-12	FTSP	1171-38103		Yes
84-13	FTSP	1171-38104		?
84-14	LESP	1171-38105		Yes
84-15	FTSP	1171-38106		Yes
84-16	FTSP	1171-38107		Yes
84-17	FTSP	1171-38108		Yes

Table 4. Results of burrow examinations in Biology Plot 2 - Above cabin to the southwest, 13 June 1984.

Burrow No.	Species	Band No.	Replaced Band No.	Egg
84-1	FTSP	1171-38109		Yes
84-2	LESP	1171-38110	1171-06623	No
· · ·	LESP	1171-38111		No
84-3	FTSP	1171-06512	Not Replaced	Yes
2-10	Empty		· · · · · · · · · · · · · · · · · · ·	
2-43	LESP	1171-38112		No
84-5	LESP	1171-38113	with sum with	Yes
84-6	FTSP	1171-38114		Yes
2-20	FTSP	1171-38115	1211-84309	Yes
2-42	Empty			103
2-30	LESP	1171-38116		No
42/45	ANMU			2 eggs
2-33	LESP	1171-38117	1171-06515	Yes
2-29	LESP	1171-38118		Yes
UNM#4	FTSP	1171-38119		Yes
2-35	FTSP	1171-38120		Yes
2-28	FTSP	1171-38121		Yes
2-3	LESP	1171-38122		No
2-1	Empty	11/1 30122		
2-5	ANMU			2 eggs
2-49	Empty			2 0650
84-7	FTSP	1171-38123		Yes
2-11	Empty			100
84-8	LESP	1171-38124	1171-06852	No
84-9	FTSP	1171-38125		Yes
84-10	FTSP	1171-06552		?
2-58	??			?
2-55	FTSP	1171-38126		?
2-34	Empty	TT11 - JOT40		÷
2-34	ANMU		40 100 100	2 eggs
84-11	FTSP	1171-38127		2 eggs Yes
2-54		11/1-3012/		ies
	Empty	1171_20120		¥
2-46	FTSP	1171-38128		Yes
2-27	??			Yes

Table 5. Results of burrow examinations in Biology Plot 3 - Above cabin to the Northwest, 14 June 1984.

Burrow No.	Species	Band No.	Replaced Band No.	Egg
84-1	??. ·			Yes
84-2	LESP	1171-38129		No
84-3	LESP	1171-38130		Yes
84-4	LESP	1171-38131	1211-84358	Yes
84-5	FTSP	1171-38132		Yes
13	FTSP	1171-38133		Yes
84-6	LESP	1171-38134		Yes
84-7	FTSP	1171-38135	Unreadable	Yes
4-14	FTSP	1171-38136		Yes
4-19	FTSP	1171-38137	Unreadable	Yes
84-8	LESP	1171-38138		Yes
4-17	Empty			
84-9	LESP	1171-38139		Yes
84-10	FTSP	1171-38140	Mili uga aka	old egg
4-03	FTSP	1171-38141		Yes
84-11	LESP	1171-38142		No
	LESP	1171-38143		No
84-12	FTSP	1171-38144		Yes
84-13	LESP	1171-38145	, <b>—</b>	No
4-16	Empty			
4-09	FTSP	1171-38146		Yes
4-06	FTSP	1171-38147		Yes
84-14	LESP	1171-38148		No
	LESP	1171-38149		No
84-15	FTSP	1171-38150		Yes
84-16	LESP	1171-38151		Yes
84-17	FTSP	1171-38152		Yes
84-18	??			Yes

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Table 6. Results of burrow examinations in Biology Plot No. 4 - South Marsh, 14 June 1984.

			Area III	Area IV	iik du Y	ni ca v
Pelagic Cormorant <sup>1</sup>			8			
led-faced Cormorant <sup>1</sup>			1		2	
lack-legged Kittiwak	e <sup>1</sup> 177	72	107	155	106	~ 50
ed-legged Kittiwake	-		<u> </u>	1/0	1	
hick-billed Murre <sup>2</sup>	208	69	69	149	23	
ommon Murre <sup>2</sup>	31					
	S					
Count of individual		seabirds a	t Outer Roc	k, 17 June	, 1745-19	10 hrs.
Count of individual: able 8. Results of o		seabirds a	t Outer Roc Num		, 1745-19	10 hrs.
	census of cies iwakes <sup>1</sup>	seabirds a		ber 0	, 1745-19	10 hrs.

Table 7. Results of Seabird Census at Middle Rock, 17 June 1984, 1530-1711 hrs

Description	No.	Description	No.
plastic box	1	plastic bottles	107
misc. plastic fragments	96	plastic lids	14
plastic jugs	6	plastic helmets	2
plastic beer crates	10	plastic fish basket	12
plastic tobaggan	· 1	styrofoam fragments	18
strapping (open pieces)	3	strapping (large bundle)	1
large rubber ship bumper	1	onion bag	1
glass bottles and jars	5	whiskey bottles	7
sake bottles	1	spray cans	6
netal cans	8	aluminum cans	2
netal navigation buoy	1	misc metal pieces	1
wheel and tire	1	55 gallon drums	3
5 gallon plastic buckets	5	wood barrel	3
wood crate	1	wood spool	່ 2
brushes and brooms	3	sandals	7
shoes	2	poly line fragments	42
gillnet floats	218	metal trawl floats	31
lastic trawl floats	60	soft pvc floats	14
gillnet fragments	22	trawl fragments	91

Table 9. Debris found on Northwest Bight Beach on 16 June 1984.

Species	Number	
Laysan Albatross	1	
Northern Fulmar	1	
Pelagic Cormorant	2	
Glaucous Gull (imm.)	1	
Glaucous-winged Gull (adult)	13	
Glaucous-winged Gull (imm.)	1	
Thick-billed Murre	1	
Thick-billed Murre <sup>1</sup>	1	
Unidentified Murre <sup>1</sup>	1	
Tufted Puffin	1	

Table 10. Results of beached bird survey, Northwest Bight, 18 June 1974.

<sup>1</sup> tangled in gillnet fragment

Table 11. Number of birds observed on transects at Northwest Bight.

Date	No. Winter Wrens	No. Song Sparrows
16 June (0831)	10	5
16 June (0900)	7	5
18 June (1500)	11	11

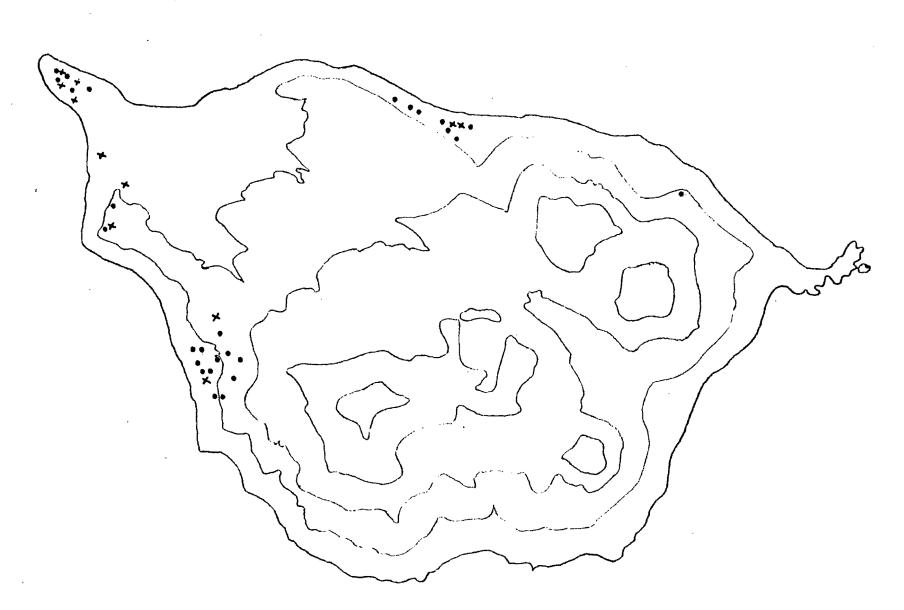


Figure 1. Location of all nests ( ) and broods of Canada Geese found on Buldir Island, June 1984.  $\bigwedge$ 

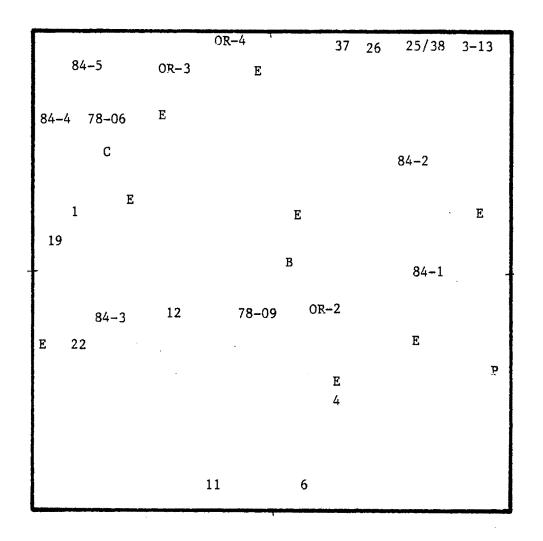


Figure 2. Locations of individual storm-petrel burrows in biology plot 1.

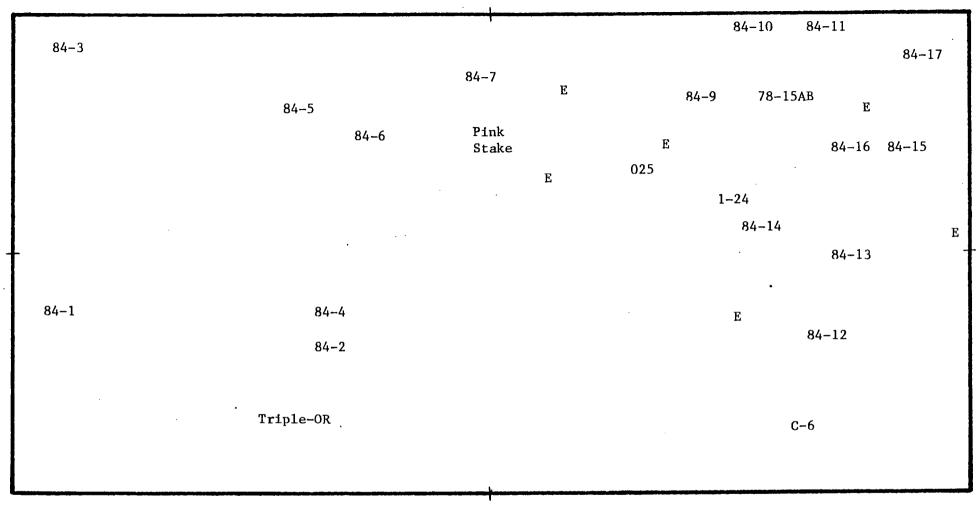
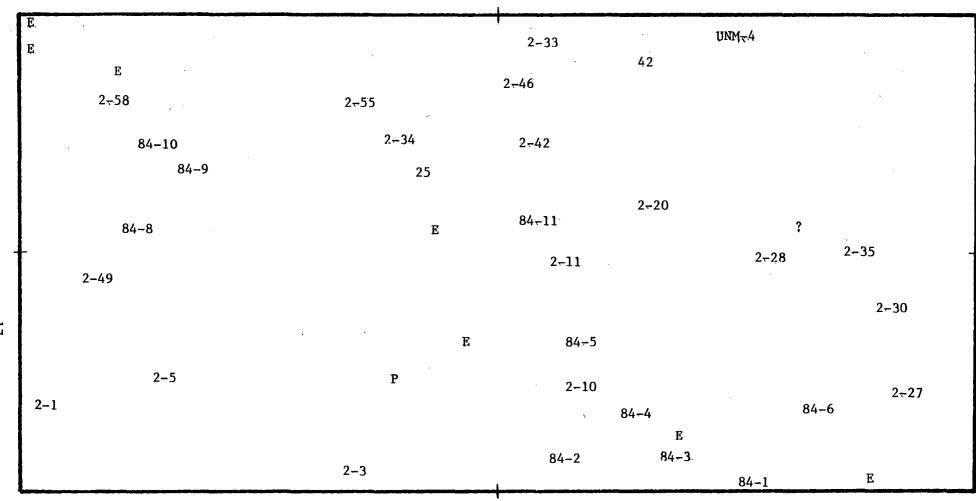


Figure 3. Locations of individual storm-petrel burrows in biology plot 2.



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Eigure 4. Locations of individual storm-petrel burrows in biology plot 3.

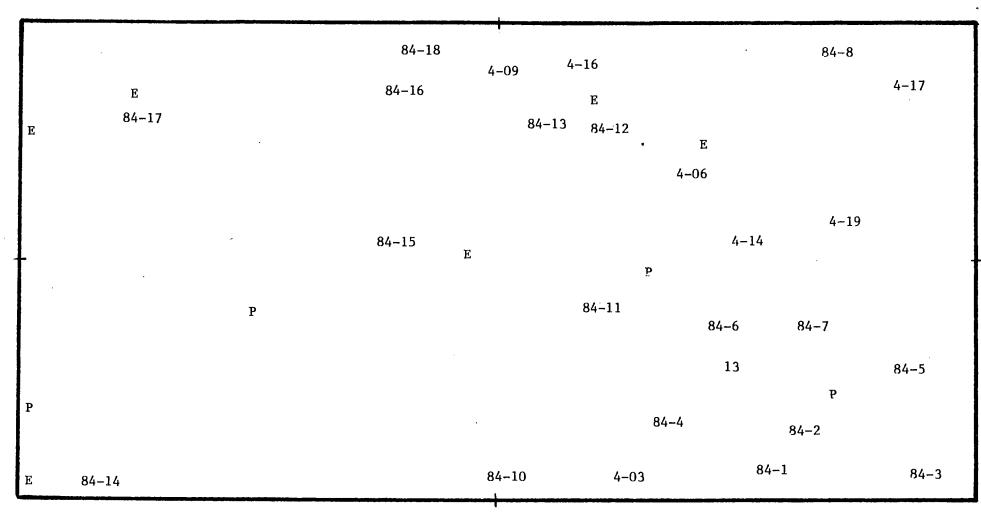
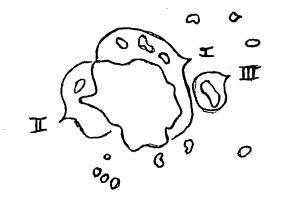


Figure 5. Locations of individual storm-petrel burrows in biology plot 4.

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OUTER ROCK

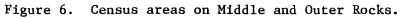
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I Π V <u>V</u>. 6 4 0 0 5 MIDDLE ROCK Q VI NORTHWEST POINT, BULDIR ISLAND

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Appendix 1. Annotated Species List for Buldir and Shemya Islands.

Laysan Albatross - Seen infrequently between Buldir and Shemya Island and Shemya and Agattu Island. One individual was found dead on Buldir Island on 16 June.

Northern Fulmar - Commonly seen in waters surrounding Buldir Island and the Near Islands.

Short-tailed Shearwater - Several individuals were encountered between Agattu and Shemya on 26 June.

Fork-tailed Storm-Petrel - Abundant breeding species in plots censused on Buldir Island.

Leach's Storm-Petrel - Abundant breeding species in plots censused on Buldir Island.

Pelagic Cormorant - Encountered breeding on Shemya and Buldir Islands.

Red-faced Cormorant - Found breeding on Buldir Island.

Canada Goose - See text

Bean Goose - Allegedly seen by consultant on Shemya on 6 June.

Mallard - One male at North Marsh on Buldir on 11 June.

Pintail - Two molting males were on Bean Goose Pond on 8 and 21 June.

Eurasian Wigeon - A pair was seen on Bean Goose Pond on 16 and 21 June.

Northern Shoveller - A solitary male was on Bean Goose Pond on 8 June. A pair was seen there on 16 and 21 June.

Green-winged Teal - Solitary males were seen in Camp Valley on 9, 11 and 21 June.

Greater Scaup - Relatively common on Shemya Island between 4 and 7 June. Five males and one female were on Bean Goose Pond on 16 June. Four males in the company of one Tufted Duck were there on 21 June. A lone male was seen on salt water near Petrel Valley on 20 June.

Tufted Duck - A male and possibly a female were seen on Shemya on 6 June. A male was seen on Bean Goose Pond with 5 Scaup on 21 June.

Common Goldeneye - Two were seen flying in Camp Valley on 15 June. A male was seen on Bean Goose Pond on 16 June.

<sup>1</sup> Does not include Wood's sightings from Shemya 17 May-3 June

Harlequin Duck - Abundant around Shemya on salt water. Groups of 20 and 6 were seen on the north side of Buldir Island.

Common Eider - Abundant on salt water around Shemya. Recorded frequently at Buldir. Largest group of 22 were on the beach near Petrel Valley. One nest with 4 eggs was found east of Crested Point. Several nests were found on the south side of Alaid on 27 June.

Smew - Two females seen on Shemya on 5 and 6 June.

Common Merganser - A dead female was found in Camp Valley.

Bald Eagle - A pair was seen 3 times at Camp Valley and once at Petrel Valley.

Peregrine Falcon - Pairs were encountered at Northwest Point, west of Tip Valley and east of the main Talus. An eyrie with one large chick was found at Northwest Point.

Golden Plover - Four were encountered on Shemya on 6 June.

Bar-tailed Godwit - One was seen on Shemya on 6 June.

Green Sandpiper - A sandpiper, possibly this species, was seen on Shemya on 4 June. Unfortunately dark underwings were not seen.

Gray-tailed Tattler - Single birds were seen on Shemya on 6 June and one on Buldir on 10 June.

Wandering Tattler - One bird was seen on Buldir on 24 June.

Rock Sandpiper - A few were seen on Shemya between 4 and 7 June. One pair that acted as if nesting was on Alaid on 27 June.

Parasitic Jaeger - Seemingly abundant on Buldir in the higher elevations. One nest with two eggs was found in South Marsh on 9 June. On 24 June, the eggs had not yet hatched.

Pomarine Jaeger - Two were seen off of Shemya on 7 June and 26 June.

Glaucous-winged Gull - Hatching on Buldir occurred as early as 9 June. See text for additional info.

Glaucous Gull - One immature was found dead on Buldir.

Slaty-backed Gull - Adult plumaged bird was seen on Shemya on 7 June. An adult plumaged bird in the close company of a Glaucous-winged Gull was observed at Petrel Valley on 10 June. We were unable to find the latter bird during later searches.

Black-headed Gull - Adult plumaged birds were seen on Shemya on 5 and 6 June and Buldir on 23 June. A high of 3 immatures were seen on Buldir on 10 June.

Black-legged Kittiwake - Frequently seen.
Red-legged Kittiwake - Seen on Buldir Island.
Aleutian Tern - Several were seen on the south side of Shemya on 5 and 6 June.
Thick-billed Murre - Nesting on Buldir.
Common Murre - Nesting on Buldir.
Pigeon Guillemot - Seen on Shemya and Buldir in small numbers.
Horned Puffin - Abundant breeder on Buldir. Observed doing fly-bye's on the south side of Shemya in low numbers.
Tufted Puffin - Abundant breeder on Buldir.
Crested Auklet - Abundant breeder on Buldir.

Whiskered Auklet - Common breeder in high rocky beach from Crested Point to the Main Talus. Arrive at the colony usually near dark. One individual was seen off of the south side of Alaid on 27 June.

Least Auklet - Common breeder on Buldir. Four individuals were seen near Shemya on 7 June.

Parakeet Auklet - Seemingly the least abundant of the auklets nesting at the main talus on Buldir. Several were seen offshore of Shemya on 7 June.

Ancient Murrelet - Common breeder on Buldir. Two pairs were nesting under wood behind the cabin. Common bird around Shemya Island.

Snowy Owl - One was seen on Shemya on 5 June.

Cliff Swallow - One bird was seen at South Marsh feeding on swarming flies on 15 June.

Raven - Abundant on Shemya.

Winter Wren - Abundant nesting bird on Buldir along the beach. Upon arrival winter wrens were feeding broods.

Rosy Finch - Frequently seen on Shemya and Buldir. Fledglings were first observed on Buldir about 16 June. Observed three broods of 2 and one brood of one.

Song Sparrow - Common breeder on Buldir.

Lapland Longspur - Most abundant of the passerines on Buldir and Shemya. A nest was found in Camp Valley.

Snow Bunting - Infrequently encountered on Shemya and Buldir.

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