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November 25, 1988

MEMORANDUM
Alaska Peninsula/Becharof NWR

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THROUGH: Robert Gill, Project Leader, Shorebirds
TO: Dirk Derksen, Branch Chief, Migratory Birds
FROM: Una G. Swain, Biological Technician

Robert Gill
Una Swain

SUBJECT: Sightings of collared cackling Canada geese along the Alaska Peninsula, Fall 1988.

FILE WT 8.6.2
RT
DAN SOL

Cackling Canada geese were observed staging along the NE Alaska Peninsula at Ugashik Bay and at Cinder Lagoon from 26 September through 16 October 1988. A two person field camp was located at each site for the duration of the study. A detailed report of our findings will follow. Here we present a brief summary of this fall's study, including sightings of neck-collared geese. Collar codes have been checked against banding schedules, but have not been checked against collared birds known to be dead.

Fifteen hundred cackling Canada geese were present in the Ugashik area upon our arrival on 26 September. Numbers remained constant through 4 October, slowly increasing to 3,000 geese by 10 October. A marked increase occurred on 11 October when 5,000 geese were estimated to be in the area. The population steadily increased to about 8,000 by 13 October, when geese began departing the area. By 14 October only 2500-3000 geese remained and the population persisted at this level until our departure on 17 October.

A similar trend in the number of staging geese was evident at Cinder Lagoon, although population levels showed greater daily fluctuations than at Ugashik Bay. A few cackling Canada geese (around 200) were observed by personnel at another field camp (Cinder River camp) as early as 11 September in Cinder Lagoon, but no significant increases occurred before our arrival. From 26 September until 7 October, numbers of geese slowly increased from about 500 to 1200. On 8 October a large increase was noted with 3000-4000 cackling geese in the area, however a large percentage of these geese seemed to have left the area by nightfall. Only 1500-2000 geese remained by 9 October, and numbers continued to decrease slightly over the next couple of days. Peak arrival occurred on 12 October with 5000 geese present in the area. Numbers decreased after 12 October, with 2500-3500 geese remaining at the time of our departure.

A total of 174 individually neck-collared geese was seen this fall; 72 at Ugashik Bay and 102 at Cinder Lagoon (Tables 1a and 1b). None of the collars was seen at both Ugashik Bay and Cinder Lagoon indicating a high degree of site fidelity among geese staging at the two sites. The frequency of collar sightings was related to the number of geese using the study areas, although adverse observing conditions affected the pattern at Ugashik Bay. Of the 174 codes identified, 71 (41%) were read prior to 12 October (Tables 2a and 2b). The 174 collars were read a total of 356 times (counting each collar only once each day) for an average of two days per collar. The range extended from only one day for 95 collars to eight days for one collar.

Only 40 (23%) of the collars represented geese banded in 1988, and only 23 (13%) were hatching-year birds. It seems many of the breeding geese and associated brood groups may have overflowed the traditional staging grounds this year. We estimate 20,000-22,000 cackling geese used the areas and that the rest of the population bypassed. Other anomalies associated with the age-class distribution of neck-collared birds included a high percentage of second-year birds (20%) and birds four years old and older (38%). There is a strongly skewed sex ratio toward females among these older geese, which is not the result of an uneven sex ratio at the time of banding. The breeding status (ie. failed breeder, non-breeder, or successful breeder) was known for 22 of the neck-collared geese (Tables 1a and 1b). No patterns in their respective timing of migration and use of staging areas are evident, although known breeders seemed to spend less time on the peninsula. One goose, a failed breeder (K19), is known to have been at Cinder Lagoon for a month (13 September - 13 October), which is the longest recorded stay on the staging areas to date.

Associations of all neck-collared geese were noted at both Ugashik Bay and Cinder Lagoon and are presented in Table 3. Some of these same associations were noted on the Yukon Delta this and previous years prior to the migration of geese to the Alaska Peninsula (C. Ely, USFWS, unpublished data).

Of the 22 cackling Canada geese that were outfitted with radio transmitters this summer, three were picked up on the peninsula this fall. One bird, 94K (167.133), was heard in the Ugashik area on 12 October, and radio signals from another bird, 704 (167.209) were received at Cinder Lagoon on the same date. The second radio-transmitted goose picked up in the Cinder Lagoon area was K19 (167.022), which was heard on 27 September, and 9 and 12 October and was seen, but not heard, on 13 September, and 4, 5, and 13 October. The only radio transmitter that was received from the ground and not during an aerial survey was the one identified at Ugashik Bay.

Attachment

cc: Jim Bartonek, USFWS
Dan Connely, CDF&G
Ron Hood, Alaska Peninsula NWR
Bob Jarvis, Oregon State University
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Rod King, USFWS
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John Takekawa, USFWS
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Table 1a. Collared cackling Canada geese observed at Ugashik Bay, Alaska,
27 September - 16 October 1988.

Collar	Age-Sex(Status)*	Captured		Date seen		No. days seen
		Date	Location	first	last	
000	U-U	U	U	4 Oct	4 Oct	1
312	AFiY-M	Nov 84	Tule Lake NWR	15 Oct	15 Oct	1
343	AFiY-M	"	"	1 Oct	13 Oct	6
612	AHY-M (NB)	Jul 88	Anerkochik River	1 Oct	4 Oct	3
619	AHY-M (NB)	"	"	4 Oct	6 Oct	2
633	AHY-F (NB)	"	"	11 Oct	13 Oct	2
705	AHY-M (NB)	"	Kokechik Bay	13 Oct	15 Oct	2
711	AHY-F (NB)	Jul 88	"	11 Oct	12 Oct	2
712	AHY-M	"	Kokechik River	13 Oct	15 Oct	2
719	HY-M	"	"	15 Oct	15 Oct	1
740	HY-M	"	"	13 Oct	13 Oct	1
7A2	FiY-F	Jul 84	Kokechik Bay	13 Oct	13 Oct	1
C88	ASeY-F	Aug 82	Kokechik Bay	2 Oct	2 Oct	1
6C8	FiY-F	Jul 85	Ninglifak River	13 Oct	13 Oct	1
E51	SiY-M	Aug 83	Azun River	2 Oct	2 Oct	1
E86	AFiY-M	Aug 85	Manokinak River	30 Sept	10 Oct	7
OE8	FY-F	"	"	13 Oct	15 Oct	2
7E8	FY-F	"	"	1 Oct	15 Oct	6
H40	AFiY-M	Jul 85	Manokinak River	13 Oct	13 Oct	1
H45	AFiY-F	"	"	30 Sept	10 Oct	7
H91	FY-F	Aug 85	"	13 Oct	15 Oct	2
3H5	FY-F	"	Kokechik	1 Oct	15 Oct	6
4H2	FY-M	"	"	1 Oct	15 Oct	6
J18	AFY-F	Jul 86	Kashunuk River	13 Oct	13 Oct	1
J35	AFY-M (B)	Aug 86	"	13 Oct	13 Oct	1
J84	FiY-F	Jul 85	Ninglifak River	13 Oct	13 Oct	1
1J9	ASY-F	Aug 87	Kashunuk River	13 Oct	13 Oct	1
3J0	SY-M	"	"	13 Oct	13 Oct	1
K07	AHY-F (B)	Jun 88	Manokinak River	2 Oct	2 Oct	1
K09	AHY-F (B)	"	"	13 Oct	13 Oct	1
K70	AHY-M (B)	Aug 88	"	13 Oct	13 Oct	1
5K3	HY-F	"	"	8 Oct	15 Oct	4
5K8	HY-M	"	"	13 Oct	13 Oct	1
29K	HY-F	"	"	13 Oct	13 Oct	1
82K	HY-M	"	"	13 Oct	13 Oct	1
90K	HY-F	"	"	13 Oct	13 Oct	1
L66	SeY-F	Nov 82	Tule Lake NWR	2 Oct	4 Oct	2
N09	ASiY-M	Nov 83	Klamath Basin	2 Oct	2 Oct	1

Table 1a. continued

Collar	Age-Sex(Status)*	Captured		Date seen		No. days seen
		Date	Location	first	last	
OP5	AFiY-F	Jul 85	Komoiarak Sl.	13 Oct	13 Oct	1
OP8	AFiY-F	"	"	13 Oct	13 Oct	1
2P1	AFiY-F	"	"	15 Oct	15 Oct	1
4P7	AFiY-M (B)	"	"	8 Oct	15 Oct	5
53P	AFiY-F	"	Kokechik Bay	13 Oct	13 Oct	1
V22	ASeY-M	Nov 82	Tule Lake NWR	2 Oct	2 Oct	1
6V5	TY-M	Aug 86	Kokechik	13 Oct	13 Oct	1
X09	ASeY-F	Nov 82	Tule Lake NWR	13 Oct	13 Oct	1
OX0	TY-M	Aug 86	Keoklivik River	13 Oct	15 Oct	3
2X4	AFY-M	"	Kokechik	6 Oct	6 Oct	1
5X5	TY-F (B)	"	Keoklivik River	6 Oct	6 Oct	1
21X	SY-F	Jul 87	Anerkochik River	30 Sept	15 Oct	8
28X	SY-F	"	"	15 Oct	15 Oct	1
50X	SY-F	"	"	1 Oct	15 Oct	6
63X	SY-M	"	"	13 Oct	13 Oct	1
1Y0	SY-M	Aug 87	Manokinak River	6 Oct	6 Oct	1
2Y0	SY-M	"	"	1 Oct	6 Oct	1
2Y9	SY-M	"	Kokechik River	1 Oct	15 Oct	3
3Y1	ATY-M	"	"	12 Oct	15 Oct	1
9Y7	AFY-F	"	"	13 Oct	13 Oct	1
08Y	TY-M	Aug 86	Kashunuk River	13 Oct	13 Oct	1
10Y	AFY-F	"	"	13 Oct	13 Oct	1
25Y	TY-F	"	"	3 Oct	4 Oct	2
98Y	ATY-M	Aug 87	Kokechik River	13 Oct	13 Oct	1
Z18	SiY-F	Dec 83	Sacramento NWR	2 Oct	2 Oct	1
3Z2	SY-F	Aug 87	Kashunuk River	13 Oct	15 Oct	2
5Z1	SY-F	"	Kokechik River	13 Oct	13 Oct	1
5Z9	ATY-F	"	"	13 Oct	13 Oct	1
7Z2	SY-F	"	"	6 Oct	6 Oct	1
7Z7	ATY-F	"	Kwecharak River	11 Oct	11 Oct	1
8Z3	SY-F	"	"	13 Oct	13 Oct	1
31Z	ATY-F	"	Kokechik River	13 Oct	13 Oct	1
46Z	SY-F	"	"	12 Oct	12 Oct	1
51Z	ASY-M	"	Kashunuk River	13 Oct	13 Oct	1

* See Footnote at bottom of Table 1b.

Table 1b. Collared cackling Canada geese observed at Cinder Lagoon, Alaska, 27 September - 16 October 1988.

Collar	Age-Sex(Status)*	Captured		Date seen		No. days seen
		Date	Location	first	last	
054	AFiY-F	Nov 84	Tule Lake NWR	13 Oct	16 Oct	3
088	AFiY-F	"	"	4 Oct	13 Oct	3
406	AFiY-F	"	"	15 Oct	16 Oct	2
473**	FiY-F	"	"	11 Sept	11 Sept	1
477	FiY-F	"	"	11 Oct	16 Oct	4
547	AFiY-M	"	"	11 Sept	13 Sept	2
617	AHY-M (NB)	Aug 88	Anerkochik River	12 Oct	12 Oct	1
639	AHY-F (NB)	Jul 88	"	13 Oct	13 Oct	1
722**	AHY-F	Jul 88	Kokechik River	9 Oct	11 Oct	2
723**	HY-F	"	"	9 Oct	9 Oct	1
724	AHY-F	"	"	15 Oct	16 Oct	2
725	AHY-M	"	"	30 Sept	14 Oct	3
732**	HY-F	"	"	11 Oct	11 Oct	1
733	HY-M	"	"	12 Oct	12 Oct	1
1C9	FiY-M	Jul 84	Kokechik Bay	8 Oct	8 Oct	1
2C4	FiY-F	"	"	12 Oct	12 Oct	1
9C0	FiY-F (FB)	Jul 85	Ninglifak River	13 Oct	15 Oct	2
E84	FY-M	Aug 85	Manokinak River	12 Oct	12 Oct	1
H25	ASiY-M	Jul 84	Azun River	12 Oct	13 Oct	2
H92	FY-F	Aug 85	Manokinak River	29 Sept	16 Oct	6
4H0	AFiY-F	"	Kokechik	6 Oct	6 Oct	1
8H0	FY-F	"	"	10 Oct	10 Oct	1
9H2	TY-F	Aug 86	Manokinak River	8 Oct	9 Oct	2
J26	AFY-M	Aug 86	Kashunuk River	13 Oct	13 Oct	1
J61	FiY-F	Jul 85	Kuttak River	6 Oct	6 Oct	1
J78	FiY-F	"	Ninglifak River	12 Oct	12 Oct	1
5J9	ASY-F (B)	Aug 87	Kashunuk River	9 Oct	9 Oct	1
6J1	SY-F (NB)	"	"	12 Oct	16 Oct	5
8J1	SY-F (NB)	"	"	10 Oct	12 Oct	2
8J7	SY-M (NB)	"	"	14 Oct	16 Oct	3
9J0	SY-M (NB)	"	"	15 Oct	16 Oct	2
9J8	ASY-M	"	"	13 Oct	16 Oct	4
K19	AHY-F (FB)	Jun 88	Kashunuk River	13 Sept	13 Oct	5
K37	HY-M	Aug 88	"	12 Oct	12 Oct	1
K38	AHY-F	"	"	12 Oct	13 Oct	2
K42	HY-M	"	"	12 Oct	12 Oct	1
K46	HY-M	"	"	9 Oct	9 Oct	1
K47	HY-F	"	"	12 Oct	12 Oct	1
K48	HY-M	"	"	12 Oct	12 Oct	1
K60	AHY-F	"	"	6 Oct	6 Oct	1
K69	HY-F	"	"	14 Oct	14 Oct	1
K86	HY-M	"	"	14 Oct	14 Oct	1
05K	HY-M	"	"	13 Sept	13 Sept	1

Table 1b. continued

Collar	Age-Sex(Status)*	Captured		Date seen		No. days seen
		Date	Location	first	last	
35K	HY-M	Aug 88	Kashumuk River	12 Oct	12 Oct	1
50K	HY-F	"	"	12 Oct	12 Oct	1
51K	HY-M	"	"	13 Oct	16 Oct	4
60K	HY-M	"	"	9 Oct	13 Oct	4
63K	HY-M	"	"	9 Oct	9 Oct	1
L13	ASeY-F	Nov 82	Tule Lake NWR	13 Oct	16 Oct	3
2L9	ASiY-F	Jan 83	Sacramento NWR	13 Oct	16 Oct	2
70L	ASiY-F	Oct 83	Klamath Basin	2 Oct	4 Oct	2
91N	ASiY-F	Dec 83	Sacramento NWR	3 Oct	13 Oct	5
OP3	AFiY-F	Jul 85	Kokechik Bay	13 Oct	16 Oct	3
2P3	AFiY-M	"	"	12 Oct	13 Oct	2
6P4	AFiY-F	"	"	8 Oct	13 Oct	2
8P3	AFiY-M	"	"	12 Oct	16 Oct	3
61P	AFiY-F	"	"	12 Oct	12 Oct	1
T48	ASeY-F	Nov 82	Tule Lake NWR	8 Oct	9 Oct	2
7T1	SiY-F	Nov 83	Klamath Basin	13 Oct	13 Oct	1
OV0	TY-M	Aug 86	Kokechik Bay	16 Oct	16 Oct	1
OV2	AFY-F	"	Manokinak River	13 Oct	16 Oct	4
OV3	TY-F	"	"	14 Oct	14 Oct	1
4V1	TY-M	"	Kokechik	13 Oct	13 Oct	1
6V3	ASY-U	"	"	14 Oct	14 Oct	1
8V4	AFY-F	"	"	13 Oct	14 Oct	2
54V	AFY-F	"	"	5 Oct	13 Oct	2
85V	AFY-F	"	"	13 Oct	13 Oct	1
OX1	TY-M	Aug 86	Kokechik	11 Oct	16 Oct	6
OX3	TY-F	"	"	15 Oct	15 Oct	1
2X3	TY-M	"	"	11 Oct	16 Oct	6
2X6	AFY-M	Aug 86	"	4 Oct	13 Oct	2
6X7	AFY-M	"	Keoklivik River	12 Oct	15 Oct	2
24X	ATY-M	Jul 87	Anerkochik River	12 Oct	12 Oct	1
58X	SY-M	"	"	12 Oct	12 Oct	1
59X	SY-M	"	"	12 Oct	16 Oct	4
61X	SY-F	"	"	13 Oct	16 Oct	4
74X	ATY-F	"	"	12 Oct	16 Oct	3
83X	SY-M	"	"	13 Oct	16 Oct	4
OY5	ATY-M	Aug 87	Manokinak River	4 Oct	15 Oct	6
1Y3	SY-M	"	"	5 Oct	14 Oct	4
2Y1	SY-M	"	"	11 Oct	12 Oct	2
2Y3	SY-M	"	"	14 Oct	14 Oct	1
5Y4	ATY-F	"	"	9 Oct	9 Oct	1

Table 1b. continued

Collar	Age-Sex(Status)*	Captured		Date seen		No. days seen
		Date	Location	first	last	
7Y0	SY-F	Aug 87	Kokechik Bay	12 Oct	12 Oct	1
8Y1	SY-F	"	"	13 Oct	13 Oct	1
8Y4	SY-F	"	"	13 Oct	13 Oct	1
13Y	AFY-M (B)	"	Kashunuk River	12 Oct	12 Oct	1
26Y	TY-M	"	"	12 Oct	16 Oct	4
29Y	AFY-F (B)	"	"	12 Oct	12 Oct	1
36Y	TY-F	"	"	13 Oct	16 Oct	4
43Y	AFY-M	"	Keoklivik River	15 Oct	16 Oct	2
51Y	SY-M	"	Kokechik River	5 Oct	16 Oct	5
57Y	SY-M	"	"	13 Oct	15 Oct	2
62Y	SY-F	"	"	12 Oct	15 Oct	3
26Y	TY-M	"	"	12 Oct	16 Oct	4
8Z4	ATY-F	Aug 87	Kwecharak River	15 Oct	16 Oct	2
9Z0	ATY-F	"	"	5 Oct	13 Oct	2
9Z1	ATY-M	"	"	5 Oct	13 Oct	3
9Z4	SY-F	"	"	13 Oct	16 Oct	3
33Z	SY-F	"	Kokechik River	8 Oct	13 Oct	4
35Z	SY-F	"	"	6 Oct	14 Oct	7
61Z	SY-F	"	Kashunuk River	9 Oct	9 Oct	1
69Z	SY-F	"	"	8 Oct	8 Oct	1

* Age denoted is present age. Age and sex codes are from the U.S. Fish and Wildlife Service North American Bird Banding Manual as follows:

Sex: M=male, F=female, U=unknown; and

Age: HY=Hatching Year, AHY=After Hatching Year, SY=Second Year, ASY=After Second Year, TY=Third Year, ATY=After Third Year, FY=Fourth Year, AFY=After Fourth Year, FiY=Fifth Year, AFiY=After Fifth Year, SiY=Sixth Year, ASiY=After Sixth Year, SeY=Seventh Year, ASeY=After Seventh Year.

Status, if known, is given and refers to the breeding condition of the goose: B=Breeder, NB=Non-breeder, FB=Failed breeder.

** Observed only by Cinder River camp at mouth of Cinder Lagoon.

Table 2a. Daily frequency of cackling Canada geese collars observed at Ugashik Bay, Alaska, 27 September - 16 October 1988.

	Number of collars observed																			
	September				October															
	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Total Collars	0	0	0	3	8	10	6	9	1	7	0	6	6	3	4	4	42	1	17	0
New Collars	0	0	0	3	6	7	1	2	0	4	0	3	0	1	3	2	35	0	5	0
Cumulative New Collars	0	0	0	3	9	16	17	19	19	23	23	26	26	27	30	32	67	67	72	72
Cumulative Total Collars	0	0	0	3	11	21	27	36	37	44	44	50	56	59	63	67	109	110	127	127

Table 2b. Daily frequency of cackling Canada geese collars observed at Cinder Lagoon, Alaska,
27 September - 16 October 1988.

	September		Number of collars observed																							
	11*	13*	-	27	28	29	30	October	1	2	3	4**	5	6	7	8	9**	10	11**	12	13**	14	15	16	-	18*
Total Collars	2	3		0	0	1	1	0	1	1	6	7	6	1	7	12	6	9	36	45	29	26	28			2
New Collars	2	2		0	0	1	1	0	1	1	3	5	4	0	6	8	2	5	27	21	6	6	1			0
Cumulative New Collars	2	4		4	4	5	6	6	7	8	11	16	20	20	26	34	36	41	68	89	95	101	102			102
Cumulative Total Collars	2	5		5	5	6	7	7	8	9	15	22	28	29	36	48	54	63	99	144	173	199	227			229

* Observed by Cinder River camp.

** Some of the collars observed by Cinder River camp (2 on October 4, 11, and 13; 3 on October 9).

Table 3. Associations of neck-collared cackling Canada geese observed at Ugashik Bay and Cinder Lagoon, Alaska, during fall 1988.

Location	Association	Date(s) observed
Ugashik Bay	C88, E51	2 October
"	4P7, 5K3 (family)*	8, 9, and 13 October
"	31Z, 98Y (pair)	13 October
"	10Y, 5K8 (pair ?)	13 October
"	K70, 90K, 29K, 82K (family)	13 October
Cinder Lagoon	70L plus 3 unmarked (family)	2 October
"	9Z0, 9Z1 (pair)**	5 and 13 October
"	725 plus 6 unmarked (family)	6 October
"	6P4 plus 4 unmarked (family)	8 October
"	5J9, K46, 63K, 60K *** plus 1 unmarked (family)	9 October
"	29Y, 13Y, K37, K48 (family)	12 October
"	85V plus 6 unmarked (family)	13 October
"	59X, 51K	14 October
"	K86, K69	14 October

* 4P7 seen by itself on 12 October; both 4P7 and 5K3 seen separately on 15 October.

** 9Z1 seen by itself on 12 October.

*** 60K seen by itself on 11 and 12 October.