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June 13, 1988

Mr. Charlie R. Darling Fish Springs NWR P.O. Box 568 Dugway, UT 84022

## Dear Charlie:

As you requested, the following is an analysis of the Canada Goose banding data from Fish Springs NWR. The recovery information for 1987-88 is incomplete as we only have 1st and 2nd quarter banding reports to work from. Typically, we receive a number of recoveries from the 3rd quarter report which we will receive in July or August. I will update this analysis when we receive the additional information.

## Results

A total of 258 birds in 1986 and 133 birds in 1987 were banded at FSNWR (Tables 1 and 2). In 1986, 25 young were banded while in 1987 there were no locals banded. The majority of the adults banded in 1986 (107) were failed or non-breeders as were all of the adults banded in 1987 (27). The biggest age class from both years (126 in 1986; 106 in 1987) were non-breeding second year birds.

About 2-3% of the birds trapped at FSNWR had been previously banded at other locations (Table 3).

As you can see from Table 2, about half of all recoveries of Fish Springs geese came from birds killed off the area. This holds true for all age groups. Surprisingly, only 1 recovery to date has come from out of state (generally, about 40% of recoveries of Utah banded geese come from out of state).

The direct recovery rate for Fish Springs geese in 1986-87 when there was no hunting on your area was 1.6% (4 of 258). In 1987-88 to date it is 8.3% (11 of 133). The direct recovery rate for all birds banded in Utah has averaged 6-10% since the early 1980's.

## Discussion

While some geese are produced from FSNWR, the greatest utilization of this area by Canada Geese is as a molting area for sub-adults and failed breeders and as a migration area. An examination of age categories in banded birds for the last two years pointed this out.



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Flooding has impacted goose use of Utah's historic molting areas, and we've seen some shifts in utilization. An examination of retraps over the last two years indicated that FSNWR may serve this function for geese breeding in the west-central and southern part of the state. In addition, birds from GSL marshes and from out of state are molting in the area. As a result, it is probable that a fair proportion of the geese banded on FSNWR originated elsewhere.

In regard to the impact of the FSNWR hunt on your local birds, it is a tough call with the data at hand. The direct recovery rate is well within average values for Utah where we feel harvest levels are acceptable. The hunt has, however, impacted your local population to the degree that FSNWR harvest represents probably half of the total harvest of FSNWR birds.

Whether or not the additional hunting pressure is large enough to result in a decline in your breeding population, I cannot say. I would like to see the hunt continue for several years before we draw any conclusions. With the high use of FSNWR by birds from other areas I would expect some seeding of your local breeding population by visiting geese is occurring. This may buffer the effects of the hunt.

I appreciate your interest in the banding efforts and will make an effort to update you as we receive more information. Let me know if you have any additional questions about the results.

Sincerely,

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Tom Aldrich

Waterfowl Program Coordinator

TA/sm

Table 1. Recoveries From Canada Geese Banded at Fish Springs NWR, 1986-87.

				Area o	f Recovery	
Year Banded	Age/# B	Banded	FSNWR1	Utah	0,0,8,	Total
1976	L	?	0	1	0	1
	SY	?	0	0	0	0
	ASY	?	0	0	0	0
1981	L	?	0	0	0	0
	SY	?	0	0	0	0
	ASY	?	0	1?	0	1
1986	L	25	0	0	0	0
	SY	126	0	12	13	1.
	ASY	107	0	3	0	3

 $<sup>^{1}\</sup>mathrm{No}$  open goose season on FSNWR in 1986-87.  $^{2}\mathrm{This}$  bird was found dead in September 1986 near Lund, Utah.  $^{3}\mathrm{This}$  bird was shot in Mexico in February 1987.

Table 2. Recoveries From Canada Geese Banded at Fish Springs NWR<sup>1</sup>, 1987-88.

Year Banded	Age/#	Banded	Area of Recovery				
			FSNWR	Utah	0.0.8.	Total	
1977	L	?	1	0	0	1	
	SY	?	0	0	0	Ô	
	ASY	?	ō	0 0 0	0	0	
1981	L	?	0	0	0	0	
	SY	?	0	0 0 0	0	0 0 1	
	ASY	?	1?	0	0	1	
1986	L	25	1	1	0	2	
	SY	126	1 3 2	1 5 2	0	8	
	ASY	107	2	2	0	2 8 4	
1987	L	0	0	o	0	0	
	SY	106	6	3	0	0 9	
	ASY	27	11	1	0	2	
Total 86-87	L	25	1	1	0	2	
	SY	232	1 9	8	O	17	
	ASY	134	3	3	0	6	

 $<sup>^{1}\</sup>mathrm{Only}$  includes first and second quarter banding reports.

Table 3. Area of Origin of Canada Geese Recaptured at Fish Springs NWR.

Year	Total Birds Trapped	No. of	Recaptures by Utah	Area Originally Unknown	Banded Total
	50.76		če teniy.		17.53.63.63
1986	265	0	3	4	7
1987	151	15	2	1	18