

# United States Department of the Interior

#### FISH AND WILDLIFE SERVICE UPPER SOURIS NATIONAL WILDLIFE REFUGE RR#1

FOXHOLM, NORTH DAKOTA 58738 (701) 468-5467

October 1, 1990



#### MEMORANDUM

TO:

Dale B. Henry

Refuges & Wildlife MAIL STOP: 60130

FROM:

Refuge Manager

Upper Souris NWR MAIL STOP: 62680

SUBJECT: 1990 Annual Waterfowl Enhancement Report

Attached is this station's Annual Waterfowl Enhancement Report forms. If additional information is needed please contact Assistant Refuge Manager George W. Maze.

Dean F. Knauer

Jean F. Knows

GWM/nls

OCT 2 2 1990

1. Re	eporting S	Station	Upper Souri	s NWR	2	. Report Y	ear, CY 19 <u>90</u>
3. F	Project Ty	pe (cir	cle one) <u>01</u>	·	4	. Report N	o. <u>62680-1</u>
03 na	atural isl rtificial	ands islands	05 peninsu c. 06 peninsu 07 elec. f 08 unconfi ontrol area re	fence exclosur ined predator	e cont		
5. Lo	ocation/de	signati	on Pools A,B,	C, 87 & 96		6. Initia	tion, CY 19 <u>73</u>
7. De	escription	Thirty	y-seven (37) n	ew large flax	bales placed	in pools i	n CY 1990
Tot	al availa	ble bale	es was 93 (old	& new)			
8. Ha	ıbitat typ	e/condi	tion <u>Wetland</u>	/Good Condition	on ie water l	evel.	
9. Ha	abitat Mgm	nt/CY _ <sub>Ne</sub>	ew hales are p	laced each ye	ar to replace	deteriorat	ed ones.
<u> </u>				.9			
10. <u>P</u>	redator M	lanageme	<u>nt</u> (See Ite	em 21)			
			<u>.</u>	Species Remove	<u>ed</u>		
1	1. Dates		Skunk Fox	Mink Racc	oon Grd. S	grl. Coyo	te
	<u>From</u> From	To To		-			
	From	To Totals					
		Succes	s				
1	2. Method	(s) Used	d t				
_							
13. <u>N</u>	<u>lest Monit</u>	oring		14. Method	Used Direct o	bservation	aided by airboat
15.	Species		Usable Nests	# Predator	# Abandone	d # <u>Hatchec</u>	Nests/acre
	Goose Canada	51	51	23	5	23	N/A
	Mallard		1	0	. 0	1	N/A
	Totals	52	52	23	5	24	N/A
	IULAIS				<del></del>		

16.	Goose Nest Success:	45.0 100.0	% %	Apparent Apparent	100	% Mayfield
17.	End. Species/Cat. 1	Species				
18.	Cost Accounting					

### Funding Source

19	FWS	DU	Volunteer	Other (describe)	Total
Initial Costs					
Annual Maint. Costs	1063			Labor & Equipment	\$1,063
Annual Pred. Controls					
Annual Nest Monit.	1166			Labor & Equipment	\$1,166
Other Costs (describe)	259			Replacement Bales	\$ 259
Totals	2488				\$2,488

## 20. Evaluation/Recommendation

Cost effective method of providing nesting habitat for ducks and geese. Continue program. High depredation rate due to low water as no water around bales during nesting season.

# 21. Item Continuation

<u>Item</u>	<u>Remarks</u>
10	Predator management is not keyed towards goose production.
	Predator management is a result of efforts in duck production

## 22. Other Comments

1.	Reporting Stat	ion Upper	Souris NWR	2.	Report Yea	ar, CY 19 <u>90</u>
3.	Project Type	(circle one) _	02	4.	Report No.	62680-2
03	natural island artificial isl	ls 07 ele ands 08 unc	insula cutoff (dinsula cutoff (el c. fence exclosum onfined predator a report to corre	re cont		
r			•		·	
			s B & C			ion, CY 19 <u>8</u> 8
7.	Description	Six Fibergiass	baskets and two	metal Hamed w.		·
8.	Habitat type/c		and/Good Conditio		el.	
9.	Habitat Mgmt/C	Y Fres	n nesting materia	1 annually.		
10.	From From To	Skunk To To To To tals ccess	Item 21) Species Remov Fox Mink Raco		Coyote	
13.	<u>Nest Monitori</u>	ng	14. Method	Used	· · · · · · · · · · · · · · · · · · ·	
15.	Species Nes Canada 1 Goose	sts Usable Ne	sts # Predator	# Abandoned	# Hatched	Nests/acre N/A
	Totals	1 1	0	0	1	N/A

16.	Duck	Nest Success:	N/A		%	Apparent	N/A	_% Mayfield
17.	End.	Species/Cat. 1	Species					
18.	<u>Cost</u>	Accounting						
				Fun	ding So	urce		
	19.			FWS	DU	Volunteer	Other (describe	) Total
		<u>Initial Costs</u>						
		<u>Annual Maint. Co</u>	osts			·		
	4	<u> Annual Pred. Cor</u>	ntrols					
	- 1	Annual Nest Moni	it.					
		Other Costs (des	cribe)					
		Tot	tals					

100

% Apparent

% Mayfield

## 20. Evaluation/Recommendation

Goose Nest Success

Maintenance of baskets is completed in conjunction with the placement of goose nesting bales. Continue program.

## 21. Item Continuation

Item Remarks
10 Predator management is

Predator management is not keyed towards goose production.

Predator management is a result of efforts in duck production.

### 22. Other Comments

1. R	Reporting Station	Upper '	Souris NWR		2.	Report Yea	ar, CY 19 <u>90</u>
3.	Project Type (ci	ircle one) _	08		4.	Report No.	. 62680-3
02 e 03 n	arge bales elevated nest str latural islands ertificial island *Attach	ruc. 06 pen 07 ele Is 08 unc	ninsula cut ec. fence e confined pr	off (elec xclosure edator co	) 10 other	er (describe	2)
5. L	ocation/designat	ion <u>Enti</u>	re Refuge	· · · · · · · · · · · · · · · · · · ·		6. Initiati	ion, CY 19 <u>40</u>
7. D	escription Perm	ittee trapp	ing. Numb	er of trap	os is unknown	n .	
8. H	abitat type/cond	lition <u>Enti</u>	re refuge	is trapped	l (0nly 2 of	the 4 trapp	oing units
we	ere trapped durin	ıg 1989/90 s	eason. Tr	ap placeme	ent determine	ed by permit	ttee)
	abitat Mgmt/CY _						
				v			
10.	Predator Managem	<u>ient</u>					
			<u>Specie</u> :	s Removed	<b>.</b> .		Feral
	11. Dates	Skunk		Raccoo 66	n Kadger 1 1	XX. Coyote	
	From 10/1 To 1 From 1/1 To 2		50 19 1 18	17	0	0	0
	From 3/1 To 2 Total		9 14 60 51	13 96	0	0	0 2
	Succe		00 31				
	12. Method(s) Us	ed <u>Legholo</u>	l, body cat	ching, an	d live traps	used. Num	ber of
	nights trapped	is unknown					
13.	Nest Monitoring		14.	Method Us	ed Nest D	ragging/Inc	identals
15.	<u>Species Nests</u>				# Abandoned	# Hatched	Nests/acre
	Mallard 39 Gadwall 39	37		9	$-\frac{0}{1}$	28	.067
	Wigeon 12	12		4 0			.002
	GW Teal 1 BW Teal 31	$\frac{1}{31}$		9	$\begin{array}{c c} 0 \\ \hline 3 \end{array}$	19	•054
	Shoveler 3	3		1	0	2	.005
	Pintail 1	1 2		0	0 0	1 2	.002
	L. Sc aupl 2  Totals 128	125		42	4	79	.221
	TOTAL TA			<b>⊐</b> ـ			

16.	Duck	Nest Success:		53.2	_%	Apparent	40.74	% Mayfield
17.	End.	Species/Cat. 1	Species		<del></del>			
18.	Cost	Accounting						

### Funding Source

19.		FWS	DU	Volunteer	Other (describe)	Total
	Initial Costs		l			
	Annual Maint. Costs					
	Annual Pred. Controls	375			Station Funds	\$375.00
	Annual Nest Monit.					
	Other Costs (describe)	387			Administrative	\$387.00
	Totals	762				\$762.00

#### 20. Evaluation/Recommendation

Cost effective program. Continue Program!

### 21. Item Continuation

<u>Item</u>

#### Remarks

16

Only 2 of the refuge's 4 trapping units were trapped during the 1989/90 trapping season. Nest dragging was conducted in trapped and untrapped areas. Duck nest success listed above is for all nests. Nest success for trapped areas was 72.29% Apparent, 52.27% Mayfield. Nest success for untrapped areas was 45.24% Apparent, 23.28 Mayfield.

### 22. Other Comments

The 1990 cost of conducting nest dragging operations was approximately \$5,120.00. This monitoring technique is used to evaluate the effectiveness of this stations predator management, habitat management, water management, etc. Nest dragging would be conducted with or without predator management and should therefore not be included in the cost of the predator management program.

1. Reporting Station <u>Upper Souris NWR</u>	2. Report Year, CY 19 <u>90</u>
3. Project Type (circle one) <u>08</u>	4. Report No. 62680-4
01 large bales 05 peninsula cutoff (ditch) 02 elevated nest struc. 06 peninsula cutoff (elec) 03 natural islands 07 elec. fence exclosure 04 artificial islands 08 unconfined predator cont.	
*Attach control area report to correspondi	ng project report.
5. Location/designationEntire Refuge	6. Initiation, CY $19_{-}^{3}$
7. Description Employee predator management (Incidental	al Shooting).
8. Habitat type/condition Entire refuge is covered to other activities.	
9. Habitat Mgmt/CY <u>N/A</u>	
10. <u>Predator Management</u> Species Removed	
	Snapping Turtle Feral
11. Dates Skunk Fox Mink Raccoon From 5/1 To 6/30 2 4 1 1	CFEXX Coyote Cat 2 1
From To	
Totals 2 4	2 1
Success   Shooting incidental to conduct	ing other refuge duties.
12. Method(s) UsedShooting incidental to conduct	The other reads
13. Nest Monitoring 14. Method Used s	See Report #62680-3
	andoned # Hatched Nests/acre
Totals	

16.	Duc	k Nest Success:	63.2	9	6 Apparent	40.74	Mayfiel
17.	End	. Species/Cat. 1 Spe	ecies				
18.	Cos	t Accounting					
			<u>Fur</u>	nding Sc	<u>ource</u>		
	19.	Initial Costs	FWS	DU	Volunteer	Other (describe)	<u>Total</u>
		Annual Maint. Cost:	S				
		Annual Pred. Contro	ols				
		Annual Nest Monit.	:				ļ
		Other Costs (descritotal)	ibe)				
20.		effective program.		Program	• ,		
				39			
					•		
						a ;	
21.	Iter	n Continuation					
	Iten	n <u>Re</u>	<u>emarks</u>				

22. Other Comments