

Planning and Accomplishment Narrative
UPPER MISSISSIPPI RIVER NATIONAL WILDLIFE REFUGE
Cassville District
January 1 - June 30, 1973

William H. Hutchinson

Patrick A. Brown

Refuge Manager

Biological Aid
6/15/73 - 9/15/73

Approved, Regional Office

Signature

Title

Date

Submitted by:

William H. Hutchinson
Signature

Refuge Manager
Title

1/9/74
Date

PART I

Weather conditions for the six month period were rather on the wet side with 3.67 inches over normal. On April 9, 1973 the district received a record snowfall of 19.8 inches which stopped traffic for a day. The month of January was very unseasonable with spring-like days and 50 degree temperatures. Heavy spring rains caused numerous landslides which blocked roads and railroads.

The spring flood came to the Cassville District a month early this year. The river crested at Cassville on March 23, 1973 at 21.9 feet, approximately three feet over flood stage. The heavy spring rains also produced flowing springs in the bluffs that had not flowed for many years. Pool levels never did reach normal levels during the six month period.

The fourteen acres of grain sorghum that were left in the fields last fall were heavily used by ducks during high water this spring. The field was completely flooded and approximately 95 per cent of the crop was utilized. There was a tremendous crop of wild rice on the district this year. Favorable water conditions accounted for a dense growth of rice in the Bagley Bottoms area. As in the past, the blackbirds used most of the grain, but it did provide excellent cover for waterfowl. Other aquatic plant species also found good growing conditions and excellent stands resulted. One farm unit was not planted this year due to wet conditions at planting time.

Total duck use days continue to drop with a decrease of 58 per cent from last year for the period January - April. A lower spring population of scaup was the major cause for the reduction. Mallard took over first place, followed by scaup, wood duck then blue-winged teal for the total days use of that period.

The four new vault-type toilets were finally completed this year. Fill dirt was hauled in and the mounds were seeded during the summer months. The toilets were built at Lynn Hollow Landing and at Bagley Bottoms Landing. A new information sign was built and installed at the River of Lakes Campground concession. Breaker run was added to the Dago Slough farm unit road to make it passable during the wet periods. The creek crossing at the Potosi farm unit was repaired after a flash flood rearranged it. The entrance room at the district office was repainted and new wall displays were made.

The number of trappers on the district continue to increase as there were 1561 more trap tags sold this year over last year. The average price of muskrats was \$2.13, beaver \$19.25, mink \$13.71 and raccoon \$6.90 which was received in Wisconsin. The total muskrat harvest was 11,332, down approximately 2000 from last year. The beaver harvest was about the same as last year with 138 animals harvested. The beaver population remains at a low level and a closed season will be recommended for next year.

Part I cont.

Duck production on the Cassville District was up four per cent over last year. Wood duck, the principal nester, produced an estimated 1500 young. The remainder of the 1800 total was made up of mallard, blue-winged teal and hooded merganser.

The highlight of this reporting period in public relations has to be the Wisconsin Girls Conservation Camp. This year the conservation part of the camp was held for two days and it took place at the Cassville District warehouse. Approximately 160 girls and 12 staff members took part in duck banding, mist netting, a cannon net demonstration and toured the 12-Mile Island heron rookery. National Wildlife Week was held March 18-24 and a total of 1250 students were shown wildlife films and received talks. During the winter months, 20 students and three teachers from Waupun, Wis. were given a tour to observe bald eagles on the district.

Patrick A. Brown entered on duty on June 15, 1973 at the Cassville District Biological Aid. Pat had just graduated from high school and was an Isaac Walton League referral. He received job experience in duck banding, plant transects, litter control and other aspects of refuge work. The district also received the help of one NYC worker this summer.

I. GENERAL

A. Weather Conditions

MONTH	Precipitation			Temperature			
	Total	Normal	Snowfall	Max.	Min.	Mean	Normal
						Av.	Mean Av.
January	1.66	1.83	2.2	51	-8	22.5	19.2
February	1.00	1.40	6.0	47	-13	25.7	22.0
March	4.72	2.76	1.4	64	24	42.3	31.9
April	6.30	3.08	19.8	68	11	45.2	46.8
May	5.36	4.22		77	32	55.5	58.1
June	2.13	4.21		88	51	68.9	67.9
July							
August							
September							
October							
November							
December							
Annual							
Totals							

Weather Station: U.S. Weather Bureau; Dubuque, Iowa

- Jan. very unseasonable warm temperatures, 5 spring-like days
Feb. small amount of snow with some rain and fog
March very warm and pleasant
April record snow on 4/9/73, 20 inches
May heavy rains
June hot, humid and wet

B. Habitat Conditions
1. Water

1973

POOL LEVELS

Pool No. 11 at Guttenberg, Iowa Normal: 603.0

MONTH	HIGHEST	LOWEST	AVERAGE	Flood Stage 615.0	
	LEVEL	LEVEL	LEVEL	DATES OF HIGH LEVEL	DATES OF LOW LEVEL
January	: 609.43	: 607.00	: 608.27	: 1/1/73	: 1/16/73
February	: 609.06	: 605.67	: 606.80	: 2/3/73	: 2/28/73
March	: 618.55	: 605.45	: 612.59	: 3/21/73	: 3/1/73
April	: 614.70	: 610.54	: 612.18	: 4/24/73	: 4/15/73
May	: 615.92	: 609.38	: 612.32	: 5/11/73	: 5/27/73
June	: 613.21	: 605.53	: 609.61	: 6/4/73	: 6/30/73
July	:	:	:	:	:
August	:	:	:	:	:
September	:	:	:	:	:
October	:	:	:	:	:
November	:	:	:	:	:
December	:	:	:	:	:

Guage reading: 8 am tailwater reading, L/D 10, Guttengerg, Iowa

The river crested at Cassville on March 23, 1973 at 21.9 feet. Water levels started to drop in April with a raise in May.

COMPARISON OF PEAK NUMBERS, PEAK DATES, AND TOTAL DAYS USE

Refuge: CASSVILLE DIST.

Period: JAN. 1 - APRIL 30, 1973

Species	Peak Numbers		Per cent of Change		Peak Dates*		TOTAL DAYS USE		Per cent of Change	
	1972	1973	Decrease	Increase	1972	1973	1972	1973	Decrease	Increase
Canada geese (lg.)	100	34	66		3/18	3/10	1015	238	77	
Cackling										
White-fronted										
Snow	20	-	100		3/4		140	-	100	
Blue	20	-	100		3/4		140	-	100	
TOTALS	140	34	76				1295	238	82	

Comments:

Coot	4000	2200	69		4/22	4/21	117,250	32,424	72	
Florida gallinule										

Comments:

UM-3

COMPARISON OF PEAK NUMBERS, PEAK
Refuge: *CASSVILLE Dist.*
Period: *JAN. 1 - APRIL 30*

Species	Peak Numbers		Percent of Change		Peak 1972
	1972	1973	Decrease	Increase	
Mallard	20,000	4,600	770		4/8
Black	1,300	210	838		4/8
Gadwall	200	-	100		4/15
Baldpate	1,350	600	56		4/15
Pintail	250	200	20		4/1
G.w.teal	225	50	77		4/1
E.w.teal	800	100	86		4/22
Shoveler	500	40	92		4/15
Wood duck	900	800	11		4/22
Redhead	550	225	59		4/15
Ring-neck	3700	1100	70		4/1
Canvasback	5450	1340	75		4/15
L. scarp	40000	18000	55		4/15
Golden-eye	2000	373	814		3/25
Bufflehead	600	60	90		3/25-4/1
Ruddy	60	-	100		4/1
Mergansers	1,620	2680			3/25
Old squaw					
Scoters					
Unident.					
TOTALS	77505	40691 49			4/15

*Week ending 6/4/10 22515 63

Comments:

DATES, AND TOTAL DAYS USE

73

s*	TOTAL DUCK DAYS USE		Percent of Change	
	1972	1973	Decrease	Increase
73				
21	335,370	135,408	60	
7	22,785	4,193	82	
	3,695	-	100	
9	23,100	12,089	48	
1	3,640	7,294		100
1	5,250	630	88	
1	21,420	2,590	88	
1	4,800	2,490	950	
1	24,150	27,405		13
7	11,900	3,850	68	
2	85,225	14,560	83	
	9,280	13,570	85	
1	1103,200	498,050	55	
2	25,620	8,673	66	
4	15,330	910	941	
	1,540	-	100	
0	26,915	24,031	11	
31	1,809,220	753,683	58	

COMPARISON OF PEAK NUMBERS, PEAK DATES, AND TOTAL DAYS USE

Refuge: *CASSVILLE DIST.*Period: *MAY 1 - AUGUST 31, 1973*

Species	Peak Numbers		Percent of Change		Peak Dates*		TOTAL DUCK DAYS USE		Percent of Change	
	1972	1973	Decrease	Increase	1972	1973	1972	1973	Decrease	Increase
Mallard	1,000	1,200		20	7/8	7/31	94,850	118,700		25
Black										
Gadwall										
Baldpate										
Pintail										
G.w.teal										
B.w.teal	800	400	50		8/19	7/31	45,500	21,700	52	
Shoveler										
Wood duck	2,300	2,200	4		6/10	7/31	244,300	173,600	29	
Redhead										
Ring-neck										
Canvasback										
I.scaup	4,500	-	100		5/6		38,325	-	100	
Golden-eye										
Bufflehead										
Ruddy										
Mergansers	160	90	44		6/10	6/30	15,960	8,540	46	
Old squaw										
Scoters										
Unident.										
TOTALS	8,760	3,890	56				438,935	322,540	27	

*Week ending.

Comments:

COMPARISON OF PEAK NUMBERS, PEAK DATES, AND TOTAL DAYS USE

Refuge: *CASSVILLE DIST.*

Period: *MAY 1 - AUGUST 31, 1973*

Species	Peak Numbers		Per cent of Change		Peak Dates*		TOTAL DAYS USE		Per cent of Change	
	1972	1973	Decrease	Increase	1972	1973	1972	1973	Decrease	Increase
Canada geese (lg.)	:	:	:	:	:	:	:	:	:	:
Cackling	:	:	:	:	:	:	:	:	:	:
White-fronted	:	:	:	:	:	:	:	:	:	:
Snow	:	:	:	:	:	:	:	:	:	:
Blue	:	:	:	:	:	:	:	:	:	:
TOTALS	:	:	:	:	:	:	:	:	:	:

Comments:

Coot	2,505	400	840	:	5/6	5/5	50,260	24,600	47	:
Florida gallinule	:	:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:	:
:	:	:	:	:	:	:	:	:	:	:

Comments:

COMPARISON OF PEAK NUMBERS, PEAK DATES, AND TOTAL DAYS USE

Refuge: CASSVILLE DIST.

Period: Sept. 1 - Dec. 31, 1973

Species	Peak Numbers		Percent of Change		Peak Dates*		TOTAL DUCK DAYS USE		Percent of Change	
	1972	1973	Decrease	Increase	1972	1973	1972	1973	Decrease	Increase
Mallard	3000	2500	17		10/21	9/29	145600	145600	-	
Black	200	300		50	11/8	9/29	9870	10290		4
Gadwall	100	-	100		9/16		3430	-	100	
Baldpate	1200	400	67		10/14	9/29	30660	11900	61	
Pintail	300	500		67	10/14	9/29	9660	12950		34
G.w.teal	300	200	33		10/14	9/29	5775	5075	12	
B.w.teal	800	600	25		9/9	9/29	34300	11725	66	
Shoveler	80	100		25	10/7	9/8	3220	2170	33	
Wood duck	2800	2600	7		9/30	9/22	144900	108500	25	
Redhead	20	50		150	10/21	9/3	210	1120		433
Ring-neck	200	200		-	10/21	11/3	4200	3990	5	
Canvasback	75	20	73		10/21	10/20	1715	448	74	
L.scaup	7000	5000	29		11/4	11/3	215300	107800	50	
Golden-eye	800	400	50		11/30	12/8	10395	11900		15
Bufflehead	700	300	57		11/30	11/7	7770	8785		13
Ruddy	20	75		275	10/28	10/3	210	1750		733
Mergansers	600	100	83		11/30	12/8	11530	8785	26	
Oldsquaw										
Scoters										
Unident.										
TOTALS	18195	13345	27				639045	452788	29	

#Week ending.

Comments:

COMPARISON OF PEAK NUMBERS, PEAK DATES, AND TOTAL DAYS USE

Refuge: *CASSVILLE DIST.*
 Period: *SEPT. 1 - DEC. 31, 1973*

Species	Peak Numbers		Per cent of Change		Peak Dates*		TOTAL DAYS USE		Per cent of Change	
	1972	1973	Decrease	Increase	1972	1973	1972	1973	Decrease	Increase
Canada geese (lg.)	300	50	83		10/21	10/13	4200	504	88	
Cackling										
White-fronted										
Snow										
Pine										
TOTALS	300	50	83				4200	504	88	

Comments:

Coot	25,000	1800	92		10/21	9/22	736,890	78,750	89	
Florida gallinule										
W. SWAN	2	2	-		11/4	10/6	14	14	-	

Comments:

PERCENTAGE COMPOSITION BY SPECIES OF TOTAL DUCK DAY USE

Refuge: CASSVILLE DIST.
 Period: JAN. 1 - APRIL 30, 1973

Species	Percent of Total Duck Day Use					
	19 71		19 72		19 73	
	% of Use	Order	% of Use	Order	% of Use	Order
Mallard	6.99	2	18.54	2	17.97	2
Black duck	.07	17	1.26	9	.56	10
Gadwall	.09	14	.15	16	-	-
Baldpate	1.21	8	1.27	8	1.60	7
Pintail	.17	13	.20	15	.97	9
G.w. teal	.25	12	.29	14	.08	14
B.w. teal	2.57	4	1.18	10	.34	12
Shoveler	.93	9	.55	13	.07	15
Wood duck	1.80	6	1.34	7	3.64	3
Redhead	.09	15	.66	12	.51	11
Ring-neck	.75	10	4.71	4	1.93	5
Canvasback	1.71	7	5.05	3	1.79	6
Lesser scaup	77.81	1	60.99	1	66.08	1
Goldeneye	2.28	5	1.41	6	1.15	8
Bufflehead	.41	11	.84	11	.12	13
Ruddy	.08	16	.08	17	-	-
Mergansers	2.62	3	1.48	5	3.19	4
Old squaw						
Scoter						

Comments:

PERCENTAGE COMPOSITION BY SPECIES OF TOTAL DUCK DAY USE

Refuge: *CASSVILLE DIST.*
 Period: *MAY 1 - AUGUST 31, 1973*

Species	Percent of Total Duck Day Use					
	19 71		19 72		19 73	
	% of Use	Order	% of Use	Order	% of Use	Order
Mallard	18.46	2	21.61	2	36.80	2
Black duck						
Gadwall						
Baldpate	.02	6				
Pintail						
G.w. teal	.01	8				
B.w. teal	15.21	3	10.37	3	6.73	3
Shoveler	.02	7				
Wood duck	65.71	1	55.66	1	53.82	1
Redhead	.01	9				
Ring-neck	.01	8				
Canvasback	.01	10				
Lesser scaup	.53	5	8.74	4		
Goldeneye	1.54	4				
Bufflehead						
Ruddy						
Mergansers			3.62	5	2.65	4
Old squaw						
Scoter						

Comments:

PERCENTAGE COMPOSITION BY SPECIES OF TOTAL DUCK DAY USE

Refuge: *CASSVILLE DIST.*

Period: *Sept. 1 - Dec. 31, 1973*

Species	Percent of total duck day use					
	1971		1972		1973	
	% of use	Order	% of use	Order	% of use	Order
Mallard	26.04	2	22.78	2	32.16	1
Black duck	1.75	8	1.54	8	2.27	8
Gadwall	.57	12	.53	13		
Baldpate	3.32	5	4.79	5	2.63	5
Pintail	.63	11	1.51	9	2.86	4
G.w.teal	1.88	7	.90	11	1.12	11
B.w.teal	7.51	4	5.36	4	2.59	7
Shoveler	.33	14	.50	14	.48	13
Wood duck	37.87	1	22.68	3	23.96	2
Redhead			.03	16	.25	15
Ring-neck	.70	10	.65	12	.88	12
Canvasback	.82	9	.26	15	.09	16
Lesser scaup	15.65	3	33.70	1	23.81	3
Golden-eye	.38	13	1.62	7	2.63	6
Bufflehead			1.21	10	1.94	9
Ruddy	.14	15			.39	14
Mergansers	2.33	6	1.85	6	1.94	10
Old squaw						
Scoters						

Comments:

WEEKLY DUCK POPULATIONS AND PEAK NUMBERS

Refuge: *CASSVILLE DIST.*Period: *JAN. 1 - APRIL 30, 1973*

Week of Period:	1969	1970	1971	1972	1973
1	100	125	90	25	5
2	40	70	80	50	2
3	30	70	55	10	10
4	120	140	40	30	5
5	80	120	55	10	10
6	80	90	15	10	65
7	70	110	40	15	80
8	140	310	10	25	60
9	270	4,035	212	120	3,168
10	1,760	11,290	566	625	6,954
11	1,860	9,590	612	1,970	11,880
12	17,980	7,610	3,782	7,6140	16,965
13	25,200	17,540 *	23,185	119,490 *	22,365 *
14	34,870 *	11,250	25,190 *	54,100	16,830
15	25,800	10,870	18,100	61,410	19,910
16	9,670	7,680	6,745	34,045	13,990
17	8,020	3,565	2,315	10,775	8,720
18	4,595				
TOTAL DAYS USE	831,015	533,085	514,281	1,809,220	753,683

* Indicates peak concentration

COMMENTS:

WEEKLY DUCK POPULATIONS AND PEAK NUMBERS

Refuge: *CASSVILLE DIST.*Period: *MAY 1 - AUGUST 31, 1973*

Week of Period:	19 69	19 70	19 71	19 72	19 73
1	2450	2130	2178	6140 *	1540
2	1780	1740	1969	2340	1540
3	1810	1370	1654	1740	1540
4	1940	1330	1530	1665	1540
5	2020	1260	1740	1640	1540
6	2055	1310	1790	3460	1540
7	2125	1515	1790	3460	1540
8	2385	1740	1690	3460	1540
9	2575	1870	1693	3460	2950
10	2680	2040	2643 *	3760	2950
11	2810	2290	2643	3760	2950
12	2830	2440	2640	3760	2950
13	2880	2540	2640	3760	3090
14	2950	2590	2640	3760	3090
15	2890	2740	2640	3760	3090
16	3180	2990	2640	4260	3090
17	3300 *	3140 *	2640	4280	3090
18				4280	3890 *
TOTAL DAYS USE	298,110	2,42,145	262,484	438,935	322,540

* Indicates peak concentration

COMMENTS:

WEEKLY DUCK POPULATIONS AND PEAK NUMBERS

Refuge: *CASSVILLE DIST.*Period: *SEPT. 1 - DEC. 31, 1973*

Week of Period:	19 69	1970	1971	19 72	19 73
1	3765	3170	4250	4340	4040
2	4130	3320	4580	5235	4415
3	3960	3320	4710	5190	5895
4	4000	4465	4790	6080	7270 *
5	4550	5595	5145	5920	5475
6	5740	5960	9770	10715	4589
7	5840	7225	4175	12,050 *	7135
8	7750	8100	4950	11,855	6370
9	10,550 *	7590	12,850 *	9095	7195
10	7850	8185	9500	2,420	3950
11	6827	6030	6340	8325	1750
12	1140	8605 *	6690	5,900	1650
13	1350	65	4220	4200	1750
14	1150	1500	5400	10	1600
15	1210	720	1825	20	925
16	720	200	1125	30	525
17	620	140	1500	50	150
18	390		150		
TOTAL DAYS USE	478,725	503,630	628,962	638,835	452,788

* Indicates peak concentration

COMMENTS:

1965
UM-9A

Refuge: Cassville Dist.

Period: Calendar Year Jan. 1- June 30, 1973

B. Upland Game Birds

SPECIES	POPULATION:	YOUNG	NUMBER	GREATEST	TAKE:	LOSS:	POPULATION
	JAN. 1	PRODUCED:	STOCKED:	NO. PRESENT:			DEC. 31
Ring-necked:		:	:	:	:	:	:
Pheasant :		:	:	:	:	:	:
Ruffed	:	:	:	:	:	:	:
grouse :	90	: 100	:	: 170	:	: 20	: 170
Bob-white :		:	:	:	:	:	:
quail :	20	: 20	:	: 40	:	: 5	: 35
Gray	:	:	:	:	:	:	:
partridge:		:	:	:	:	:	:
Wild	:	:	:	:	:	:	:
turkey :		:	:	:	:	:	:

C. Big Game Animals (White-tailed deer)

POPULATION:	YOUNG	GREATEST	HUNTER:	LOSSES:	POPULATION
JAN. 1	PRODUCED	NO. PRESENT	TAKE :		DEC. 31

50

15

50

15

50

Refuge: Cassville Dist. Upper Miss.

Period: Calendar Year 1973

Jan. 1 to June 30, 1973

D. Fur Animals, Predators, Rodents, and Other Mammals

SPECIES	:POPULATION: YOUNG		: GREATEST		* TAKE	:CON-:		:POPULATION
	: JAN. 1	: PRODUCED	: NO. PRESENT	:		: TROL:	: LOSS	: DEC. 31
Muskrat	23,000	10,000	33,000	:	14,332	0	1500	30,000
Mink	400	200	600	:	14	0	15	550
Beaver	255	55	310	:	138	0	0	172
Otter	40	20	60	:	5	0	0	55
Raccoon	1,200	900	2,100	:	35	0	50	2,000
Red Fox	100	70	170	:	10	0	10	150
Gray Fox	75	50	125	:	6	0	9	110
Skunk	100	100	200	:	0	0	20	180
Cotton-tail	:	:	:	:	:	:	:	:
Rabbit	800	1,000	1,800	:	150	0	150	1,500
Opossum	500	600	1,100	:	11	0	80	1,000
Gray & Fox	:	:	:	:	:	:	:	:
Squirrels	2,400	1,800	4,200	:	50	0	180	3,800
Woodchuck	75	50	125	:	0	0	15	110
Badger	11	6	17	:	0	0	1	16
	:	:	:	:	:	:	:	:

*From 1972-73 Trapping Season.

VI. PUBLIC RELATIONS

A. Recreational Use

1973	FISHING	MISCEL- LANEOUS	HUNTING			TOTAL DAYS USE
			DUCKS	DEER	OTHER	
Spring	17,600	15,405				33,005
Summer	36,261	65,677		55	50	102,043
Fall	29,363	7,180	2,562	180	815	40,100
TOTAL DAYS USE	83,224	88,262	2,562	235	865	175,148

Spring: Feb - May

Summer: June - Sept.

Fall: Oct - Jan.

	<u>1971</u>	<u>1972</u>	<u>1973</u>
Fishing	46582	67384	83224
Hunting	4810	5329	3662
Misc. Use	194245	78488	88262
Total	245637	151201	175148

Fish and Wildlife Service Branch of Wildlife Refuges
CULTIVATED CROPS - HAYING - GRAZING

Cassville District
Refuge Upper Mississippi Refuge County State Wisconsin

Cultivated Crops Grown	Permittee's Share Harvested		Government's Share or Return		Total Acreage Planted	Green Manure, Cover and Water- fowl Browsing Crops Type and Kind	Total Acreage
	Acres	Bu./Tons	Harvested	Unharvested			
			Acres	Bu./ Tons	Acres	Bu. /Tons	
Corn	10	500 bu.			2	80 bu.	
Grain Sorghum					5		17
						Fallow Ag. Land.	38

No. of Permittees: Agricultural Operations 3 Haying Operations 0 Grazing Operations 0

Hay - Improved (Specify Kind)	Tons Harvested	Acres	Cash Revenue	Grazing	Number Animals	AUM'S	Cash Revenue	ACREAGE
				1. Cattle				
				2. Other				
				1. Total Refuge Acreage Under Cultivation				
Hay - Wild				2. Acreage Cultivated as Service Operation				

REFUGEE GRAIN REPORT

Cassville District

Refuge Upper Mississippi Refuge

Months of January through June 1953

(1) VARIETY*	(2) ON HAND BEGINNING OF PERIOD	(3) RECEIVED DURING PERIOD	(4) TOTAL	(5) GRAIN DISPOSED OF			(6) ON HAND END OF PERIOD		(7) PROPOSED OR SUITABLE USE*		
				Transferred	Seeded	Fed			Seed	Feed	Surplus
Yellow dent corn (shelled)	80	0	80	30		50	0				

(8) Indicate shipping or collection points Cassville District Warehouse

(9) Grain is stored at Corn bin at Cassville District Warehouse

(10) Remarks 30 bushels transferred to the Guttenberg District

*See instructions on back.

TIMBER REMOVAL

Cassville District

Refuge Upper Mississippi Refuge Year 1933

Permittee	Permit No.	Unit or Location	Acreage	No. of Units Expressed in B. F., ties, etc.	Rate of Charge	Total Income	Reservations and/or Diameter Limits	Species Cut
None								

Total acreage cut over..... Total income.....

No. of units removed B. F. Method of slash disposal.....

Cords.....

Ties.....



During high water the heron rookeries were checked and new tags were added if needed.



The district's wild rice crop was extremely good this year.



Two new toilets located at Lynn Hollow Landing.



Heavy spring rains caused many landslides, like this one near Glenn Haven, Wis.

FY-73

SPECIES NAME

DATE	SPECIES NAME	SPECIAL RECOGNITION
1950		
1951		
1952		
1953		
1954		
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2097		
2098		
2099		

[illegible]

711 2210 4600

[illegible][illegible][illegible]

WATERFOWL PRODUCTION

DUCKS
HOODED Merganser
Mallard
Blue-winged Teal
Wood Duck

NATIONAL WILDLIFE REFUGE SYSTEM
WILDLIFE USE REPORT
(WATERFOWL ONLY)

FY-73

CASSVILLE DISTRICT
03-3527-05-CSD

SPECIES NAME	LINE CODE	*****--USE DAYS--*****							FY-NO. HARVESTED	FY-NO. PRODUCED	FY-NO. POPULATION	DATE
		JUL-SEP 72	OCT-DEC 72	JAN-MAR 73	APR-JUN 73	FY TOTAL	FY 73	FY 73				
CONTROL TOTALS	995 0000	119400	0	0	0	119400	0	0	0	0	3980	07/00
CONTROL TOTALS	996 0000	0	0	0	0	0	1730	0	0	0	10	
TOTAL		254220	178230	0	0	432450	3460	0	0	0	40	

FY-73

LINE CODE	JUL-SEP 72	OCT-DEC 72	JAN-MAR 73	APR-JUN 73	FY TOTAL	PRODUCED	FY-NO.	FY-NO.	FY-PEAK	HARVESTED	POPULATION	DATE
	*****	*****	*****	*****	*****							

CTHER BIRD-MIG & RESONT

	071	2830	0	0	0	9205	15	0	06/09
	071	3000	0	0	0	36015	110	60	06/02
	071	3900	0	0	0	58300	300	0	06/02
	071	4050	0	0	0	22600	50	0	06/02
	071	4200	0	0	0	50400	10	0	06/02
	071	4880	0	0	0	226000	500	0	06/02
	071	5130	0	0	0	966000	6000	0	06/02

[illegible]

STATUS-UNDETERMINED
OSPREY

[illegible]

NATIONAL WILDLIFE REFUGE SYSTEM
WILDLIFE USE REPORT
(EXCLUDING WATERFOWL)

FY-73

CASSVILLE DISTRICT
03-3527-05-CSD

SPECIES NAME

LINE CODE	JUL-SEP 72	OCT-DEC 72	JAN-MAR 73	APR-JUN 73	FY TOTAL	FY-NO. PRODUCED	FY-NO. HARVESTED	FY-PEAK POPULATION	DATE
AMERICAN BITTERN	711 1900	700	0	0	700	0	0	10	07/08
LEAST BITTERN	711 1910	350	0	0	350	0	0	5	07/08
GREAT BLUE HERON	711 1943	66500	12852	3150	52360	600	0	800	07/08
COMMON EGRET	711 1960	3990	700	35	2730	20	0	50	09/02
GREEN HERON	711 2010	5600	1015	0	440	30	0	75	08/26
BLACK-CROWNED NIGHT HERON	711 2020	1820	210	0	0	0	0	20	07/08
SOPA	711 2140	4550	770	0	3080	30	0	50	07/08
COMMON GALLINULE	711 2190	7	0	0	0	0	0	1	09/30
AMERICAN WOODCOCK	711 2280	2275	245	385	1813	60	0	25	07/08
COMMON SNIFE	711 2290	4550	770	0	5320	0	0	50	07/08
COMMON SNIFE	711 2300	0	0	0	1540	0	0	20	06/30
LONG-BILLED DOWITCHER	711 2320	0	70	0	70	0	0	5	10/14
SOLITARY SANDPIPER	711 2560	4550	700	0	0	0	0	50	07/08
SPOTTED SANDPIPER	711 2630	0	0	0	4550	0	0	50	06/30
KILLDEER	711 2730	5040	1140	735	3710	100	0	60	07/08
MOURNING DOVE	711 3160	0	0	0	0	125	0	250	07/08
TURKEY VULTURE	711 3250	0	0	0	6860	0	0	80	06/30
BLACK VULTURE	711 3260	6160	1540	0	7700	20	0	80	09/02
MARSH HAWK	711 3310	0	420	0	1575	0	0	20	06/30
RED-TAILED HAWK	711 3370	3640	3640	3640	4410	10	0	60	06/30
RED-SHOULDERED HAWK	711 3390	210	84	0	0	0	0	6	07/08
BROAD-WINGED HAWK	711 3430	490	420	0	0	0	0	10	09/16
ROUGH-LEGGED HAWK	711 3470	21	0	0	0	0	0	3	07/08
BALD EAGLE	711 3520	0	854	1453	0	0	0	30	03/10
SPARROW HAWK	711 3600	2730	840	945	3500	10	0	50	06/30
OSPREY	711 3640	154	0	0	154	0	0	5	09/23
BARRED OWL	711 3680	6825	6825	6825	8785	15	0	130	06/30
SCREECH OWL	711 3730	2730	2730	2730	3500	10	0	50	06/30
GREAT HORNED OWL	711 3750	4515	4550	4550	6510	15	0	100	06/30
CONTROL TOTALS	997 0000	152992	53584	93328	201648	8020	16583	52876	00/00
TOTAL		305984	107168	186656	403296	16040	33166		

Scoop

350
3000
4000
10
29000
24000
40
14500
43730
16
415
3500
15
6800
7000

Canvas

100
5750
5000
10
40700
35000
3900
15970
105
80
75
25

Ring

400
2000
2000
25
5000
5000
2900
2050
35
825
975
200
200

Red

125
1000
500
56
3000
2500
25
1400
23410
20
40
295
30

gold

10
300
750
275
50
400
1000
2250
30
16
305
30
820

buffle

70
375
100
5
800
950
650
940
10
70

Meng

250 35
150 20
200
5
3750
25
700
1
150
300
610
100
180
220
40
30
110
25

ruddy

100
100
50
30
400
500
40
220
80
16
40

<u>S</u>	<u>C</u>	<u>Ri</u>	<u>Rd</u>	<u>g</u>	<u>B</u>
4000	5250	2000	1000	750	375
29,000	40,700	5,000	3,000	400	950
43,750	15,950	2,900	2,350	2,250	950
3,500	890	975	295	305	70
7,000	75	200	20	800	700
30,000	550	2,200	350	300	150
<u>117,250</u>	<u>63,915</u>	<u>13,275</u>	<u>7,015</u>	<u>4,805</u>	<u>3,195</u>

<u>Mer</u>	<u>Rd</u>
6,760	100
1,000	3,000
600	2,350
110	40
600	20
500	100
<u>9,570</u>	<u>5,410</u>

NATIONAL WILDLIFE REFUGE SYSTEM
PEAK MONTHLY WATERFOWL POPULATIONS

CASSVILLE DISTRICT

03-3527-05-CSD

SPECIES NAME	JUL 72	AUG 72	SEP 72	OCT 72	NOV 72	DEC 72	JAN 73	FEB 73	MAR 73	APR 73	MAY 73	JUN 73
SPECIAL RECOGNITION BIRDS												
AMERICAN COOT	220	220	4100	25000	20000	0	0	0	0	2200	0	150
WATERFOWL MAINTENANCE SWANS												
WHISTLING SWAN	0	0	0	0	2	0	0	0	0	0	0	0
GESE												
CANADA GOOSE	0	0	0	300	0	0	0	0	34	0	0	0
DUCKS												
COMMON MORGANSE	0	0	0	0	600	30	5	261	2687	50	0	0
HOODED MORGANSE	160	160	160	0	0	0	0	0	20	40	0	90
MALLARD	1000	1000	1600	3000	2000	0	0	2168	4600	1600	0	900
BLACK DUCK	0	0	100	175	200	0	0	4	210	0	0	0
CADWALL	0	0	40	100	100	0	0	0	0	0	0	0
AMERICAN WIDGEON	0	0	500	1200	300	0	0	12	600	125	0	0
GREEN-WINGED TEAL	0	0	125	300	0	0	0	0	0	0	0	0
BLUE-WINGED TEAL	300	800	800	800	0	0	0	0	10	100	0	160
SHOVELER	0	0	80	80	20	0	0	0	10	40	0	0
PINTAIL	0	0	90	300	125	0	0	0	150	200	0	0
WOOD DUCK	2300	2300	2800	2800	500	0	0	0	600	800	0	0
RED HEAD	0	0	10	20	0	0	0	30	225	0	0	0
CANVASBACK	0	0	0	75	25	0	0	40	1340	50	0	0
LESSER SCAUP	0	0	0	6800	7000	0	0	200	16200	18000	0	0
RING-NECKED DUCK	0	0	0	200	200	0	0	80	1100	125	0	0
COMMON GOLDENEYE	0	0	0	0	800	20	5	373	409	30	0	0
RUFFLEHEAD	0	0	0	10	700	0	0	0	60	50	0	0
RUDDY DUCK	0	0	0	20	0	0	0	0	0	0	0	0
TOTAL SWANS	0	0	0	0	2	0	0	0	34	0	0	0
TOTAL GESE	3760	4260	6305	15880	12570	50	10	3168	28221	21260	0	2950
TOTAL DUCKS	3760	4260	6305	16180	12572	50	10	3168	28255	21260	0	2950

NATIONAL WILDLIFE REFUGE SYSTEM
AVERAGE MONTHLY WATERFOWL POPULATIONS

CASSVILLE DISTRICT

03-3527-05-CSD

SPECIES NAME	JUL 72	AUG 72	SEP 72	OCT 72	NOV 72	DEC 72	JAN 73	FEB 73	MAR 73	APR 73	MAY 73	JUN 73
SPECIAL RECOGNITION BIRDS												
AMERICAN COOT	220	220	1355	17350	6090	0	0	0	41	1150	1110	1112
WATERFOWL MAINTENANCE SWANS												
WHISTLING SWAN	0	0	0	0	2	0	0	0	0	0	0	0
GEESE												
CANADA GOOSE	0	0	0	200	0	0	0	0	34	0	0	0
DUCKS												
COMMON Merganser	0	0	0	0	500	25	5	91	700	50	0	0
Hooded Merganser	160	160	160	0	0	0	0	0	15	40	0	52
Mallard	1000	1000	1222	2300	1320	0	0	2168	3419	575	0	675
Black Duck	0	0	60	115	150	0	0	4	148	0	0	0
Gadwall	0	0	26	65	75	0	0	0	0	6	0	0
American Widgeon	0	0	195	750	300	0	0	12	332	96	0	0
Green-winged Teal	0	0	108	166	0	0	0	0	0	45	0	0
Blue-winged Teal	300	550	712	512	0	0	0	0	10	90	0	115
Shoveler	0	0	55	73	20	0	0	0	10	30	0	0
Pintail	0	0	60	229	114	0	0	0	138	122	0	0
Wood Duck	2300	2300	2622	2375	350	0	0	0	304	675	0	1050
Red Head	0	0	10	20	0	0	0	30	130	0	0	0
Canvasback	0	0	0	58	23	0	0	40	167	50	0	0
Lesser Scaup	0	0	10	4600	3420	0	0	200	8362	12750	0	0
Ring-necked Duck	0	0	0	200	200	0	0	80	468	125	0	0
Common Goldeneye	0	0	0	0	356	15	5	118	178	30	0	0
Bufflehead	0	0	0	10	550	0	0	0	26	50	0	0
Ruddy Duck	0	0	0	15	0	0	0	0	0	0	0	0
TOTAL SWANS	0	0	0	0	2	0	0	0	0	0	0	0
TOTAL GEESE	0	0	0	200	0	0	0	0	34	0	0	0
TOTAL DUCKS	3760	4010	5230	11488	7378	40	10	2743	14407	15128	0	1892
TOTAL WATERFOWL	3760	4010	5230	11688	7380	40	10	2743	14441	15128	0	1892

NATIONAL WILDLIFE REFUGE SYSTEM

WATERFOWL USE DAYS

CASSVILLE DISTRICT

03-3527-05-CSD

SPECIES NAME

SPECIAL RECOGNITION

BIRDS

AMERICAN COOT

WATERFOWL MAINTENANCE

SWANS

WHISTLING SWAN

GEESE

CANADA GOOSE

DUCKS

COMMON Merganser
HOODED Merganser
MALLARD
BLACK DUCK
GACKWALL
AMERICAN WIDGEON
GREEN-WINGED TEAL
BLUE-WINGED TEAL
SHOVELER
PINTAIL
WOOD DUCK
RED HEAD
CANVASBACK
LESSER SCAUP
RING-NECKED DUCK
COMMON GOLDENEYE
BUFFLEHEAD
RUDLY DUCK

JUL 1972-
SEP 1972

OCT 1972-
DEC 1972

JAN 1973-
MAR 1973

APR 1973-
JUN 1973

12 MONTH
TOTAL

53,850

703,200

1,230

37,860

796,140

0

60

0

0

60

0

6,000

1,020

0

7,020

0

15,750

23,880

1,500

41,130

14,400

0

450

2,760

17,610

96,660

108,600

167,610

49,500

422,370

1,800

7,950

4,560

0

14,310

780

4,200

0

0

4,930

5,850

31,500

10,320

2,880

50,550

3,240

4,980

0

1,350

9,570

46,860

15,360

300

6,150

68,670

1,650

2,790

300

900

5,640

1,800

10,290

4,140

3,660

19,390

216,660

81,750

9,120

51,750

359,280

300

600

4,800

0

5,700

0

2,430

6,210

1,500

10,140

0

240,600

256,860

382,500

879,560

0

12,000

16,440

3,750

32,190

0

11,130

9,030

900

21,060

0

16,800

780

1,500

19,080

0

450

0

0

450

TOTAL SWANS

TOTAL GEESE

TOTAL DUCKS

TOTAL WATERFOWL

0

60

1,020

0

7,320

390,000

567,180

514,800

510,600

1,982,530

390,000

573,240

515,820

510,600

1,989,600