

ROUTING SLIP

DIVISION OF WILDLIFE REFUGES

DATE: May 27. 1946.MR. SALYER

SECTION OF HABITAT IMPROVEMENT:

MR. ELMER~~Mr. Griffith~~ REG 5-31MR. KRUMMES~~Mr. Krummes~~ WSB 5-29~~MR. DIMONT~~PAD 9/17~~Miss Cook~~ zwc 6-12-46

SECTION OF OPERATIONS:

SECTION OF LAND MANAGEMENT:

Mr. Regan~~Mr. Kent~~ JK 8/9/46Mr. Ball~~Mr. Ackerman~~ wa 8-23Miss Baum

SECTION OF STRUCTURES:

STENOGRAPHERS:

~~Mr. Taylor~~ WV 6/13REMARKS:VALENTINE NATIONAL WILDLIFE REFUGENARRATIVE REPORT & Annual SummaryJan. - Apr. - 1946.

Return to: _____

VALENTINE NATIONAL WILDLIFE REFUGE

SUMMARY FOR ANNUAL REPORT

MAY 1, 1945 to APRIL 30, 1946.

WEATHER CONDITIONS

Precipitation, as during the previous year, has remained considerably above normal for the year. The year was characterized by above normal wet spring and summer seasons, dry but windy fall and a dry but mild winter season. The year's precipitation records indicated 5.67 inches above the normal average of 17.98 inches. There were several severe temperature fluctuations during the months of May and June of 1945.

Hail storms, typical of this region, caused serious damage in the early summer of 1945. Besides breakage to tile roofs and windows of refuge buildings, the buds of trees and shrubs were destroyed and nesting activities of waterfowl were materially disrupted.

WATER CONDITIONS

Water gauges installed on the major lakes in the spring of 1945 contributed greatly in evaluating water fluctuations, especially regarding precipitation versus evaporation and loss from other causes. Measurements indicated that water levels during the year fluctuated never more than one foot. All evidences from this and previous years point to higher water levels and more constant water supply now than at any time since the establishment of the refuge.

WILDLIFE

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Since food and cover conditions have been continually improved, along with water conditions, the natural situation for all wildlife is probably nearer an optimum than at any time in the past.

Late killing frosts damaged some of the fruit and berry crop during 1945 but the variety and abundance of remaining species more than sufficed for the wildlife present. Wild, rice areas have decreased due to high water levels but it is expected to re-establish itself in due course of time. It is estimated that the present stock of vegetation on this refuge is sufficient to carry at least four times the present waterfowl population.

Waterfowl, with the exception of some of the diving ducks, increased from ten to twenty-five percent during the fall migrations as compared to former years. Approximately one-quarter million waterfowl of all species used the refuge during the fall migration. Spring migrations began early, due to the early 1946 spring season, and were prolonged over a long period. Surface feeding ducks, particularly Pintail, Gadwall and Blue-winged teal showed a substantial increase; diving ducks remained fairly consistent with the exception of Canvasback and the Red-head which clearly indicated a decrease in migratory figures. An actual count on April 30, 1946 of primary waterfowl totalled 32,000. All ducks showed a preference to the shallow lakes during the nesting season and while congregating in the fall.

Ring-necked Pheasants apparently did not suffer materially in the 1945 spring temperature fluctuations and are currently estimated to be 12 percent increased over last years populations. There are an estimated 3,500 pheasants distributed over the refuge at this time.

Sharp-tailed Grouse populations remain steady, while Prairie Chicken has shown a slight increase within the refuge boundary.

The principal predators active in sufficient numbers to be detrimental to duck and other wildfowl populations on the refuge are the

skunk, bullsnake, snapping turtle and the coyote. 54 coyote and 22 skunk were taken off the refuge during the past trapping season and 50 snappers and 140 bullsnakes were trapped or killed during the early summer season of 1945. The coyote depredations are believed to be offset considerably by their value in rodent control; the rodents in turn furnishing hibernation shelter for the numerous bullsnakes and rattlesnakes on the refuge.

IMPROVEMENTS AND PROPERTY

Roads, constructed seven and eight years ago by the CCC's, have deteriorated almost completely in many sections, particularly during war years. Equipment for road construction and maintenance can be utilized to great advantage when funds permit. Telephone lines, signs, fences are presently in satisfactory repair. All frame buildings are being repainted.

Transportation equipment has recently evolved as a problem due to the addition of two men to the war-time complement of personnel on the refuge. Maintenance parts needed to keep present vehicles in running condition are still difficult to obtain but the next year should bring back many supplies and materials seriously needed for operation and maintenance activities.

No major items of construction were undertaken during the past year. A few of the more important maintenance and operational projects include providing facilities for handling the fur harvest, opening of the Gordon Creek Diversion Canal, repair and maintenance of trails when possible and maintaining our boundary fences and telephone lines.

ECONOMIC USES

Seasonal economic uses provided approximately \$19,000.00 revenue to the Government, including the fur harvest.

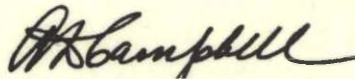
Seasonal use of our range lands by approximately 8,000 head of cattle comprising 15,706 animal use months provided about \$7,000 of this revenue. Hay harvested on our meadows accounted for \$2,000 and winter feed lots provided \$300.00.

The trapper's share of the fur harvest sold for over \$9,000 and the Government share will equal or exceed that figure when complete returns are available. Our fur harvest will be greater next year, but our other economic use returns may be less as it is necessary to curtail economic uses on certain areas where such use will compete with increasing populations of wildlife.

RECREATIONAL USES

Fishing is creating an increasingly heavy pressure on the limited refuge facilities. Fishermen come from Omaha, Lincoln and other distant cities to fish in the refuge lakes made available to public fishing. This greatly increased car travel assists the deterioration of our refuge sandhill trails, increasing our maintenance problems as well as our fire hazard, but brings a favorable impression of the Fish and Wildlife Service to the Public since they can enjoy the recreational areas made available to them and they can see some of our propagation work and that our economic use surplus is being utilized.

Respectfully submitted,



A. D. Campbell,
Refuge Manager.

P E R S O N N E L

* A. D. Campbell	Refuge Manager
** James P. Gilligan	Refuge Manager, SP-6
Lawrence H. Junod	Mechanic-Patrolman
*** Maynard L. May	Clerk-Patrolman
**** Marvin H. West	Laborer-Patrolman

Valentine National Wildlife Refuge

Valentine, Nebraska

- * Transferred & returned from Military furlough January 28, 1946
- ** Entered on duty April 26, 1946
- *** Transferred & returned from Military furlough April 1, 1946.
- **** Returned from Military furlough March 28, 1946

Narrative Report

Valentine National Wildlife Refuge

Valentine, Nebraska

January 1 to April 30, 1946

General

A. Climatic Conditions:

1. Temperatures: Temperatures during the period were abnormal. April of this year has been the warmest of any corresponding period in 58 years with maximum temperatures in the eighty to ninety degree levels on several occasions during the month. Only one light frost (30°F.) occurred on April 15th, and indications are that this may be the last killing frost, though ordinarily, a killing frost is experienced during the first two weeks of May.

Both January and February were comparatively mild with snow-storms of short duration only. March was also considered mild and none of the refuge lakes were iced over during the entire month. The ice went out on the main lakes during the last week of February. Ordinarily the ice goes out approximately March 15th.

2. Precipitation: Rainfall and snow for the period was high, particularly for the months of March and April. Normal precipitation for the period is 3.54 inches, based on the past 50 year's records, whereas during the current period it was 5.91 inches.

	Precipitation		Temperature			
	Normal	Current	Normal		Current Mean	
			Max.	Min.	Max.	Min.
January	.03	.05	30.7	7.1	42.7	13.3
February	.55	.25	33.2	9.6	45.4	18.0
March	1.38	2.95	44.0	20.6	56.8	30.3
April	1.58	2.66	57.8	33.6	67.9	40.6
Total	3.54	5.91				

B WATER CONDITIONS

Water conditions this Spring season have been the best since the establishment of the refuge. A constant flow was obtained through the Gordon Creek diversion during the last half of March and up to April 15th, with a small supply continuing to flow throughout the remainder of the month. Hackberry Lake was raised 18 inches with this source and Dewey Lake received much of the overflow.

Watts Lake is at capacity level, Clear Lake is overflowing and Willow Lake lacks only 24 inches of topping the State dam on the north outlet.

Both Pelican and Whitewater Lakes reached the overflowing stage. However, earthen plugs in the outlets of these lakes prevented any overflow and raised the water levels of both of these lakes slightly. Other lakes within the refuge likewise reached a new high and water conditions in general were considered excellent.

Several new water control structures can be used to advantage, particularly when water levels are high as is the present condition, and their construction will be recommended when detailed field data can be obtained and compiled.

C. FIRES

One fire occurred on the refuge during the period covered by this report. It was started by the exhaust pipe of a car driven by an employee of a construction company operating in Tom's Valley. The fire was located one mile west of the Pony Lake Sub-headquarters area and was brought under control within two hours by Refuge personnel, Keiwitt Construction Co. employees, and approximately 60 neighboring permittees and their hired men. No damage was done either to refuge or to private property, the

fire being in an accumulated dead grass mat. Approximately 140 acres of grass range land was burned over.

The fire hazard during both March and April was very high, created by the accumulation of dead vegetative mat in many areas on the refuge but the periodic showers did tend to reduce the hazard somewhat and all of the electrical storms were fortunately accompanied by rainfall.

II WILDLIFE

A. MIGRATORY BIRDS

1. Populations and Behavior: Due to the early Spring season the migratory bird concentration was not at any time considered heavy on the refuge. The migration appeared to be steady and was prolonged over a period of three to four weeks with no particular few days where the migratory species as a group could be determined as having a definite peak. However, definite peaks in certain individual species were noted.

The first migratory waterfowl were noted February 21st on Long Lake, located in the eastern limits of the refuge and each day succeeding there were noted increasing populations until approximately March 9th when the steady Northern Migration was noted. This migration continued through March and the first week of April, at which time a definite reduction in the numbers of transient waterfowl were noted.

Migratory populations of surface feeding ducks appeared to have increased over last year's Spring Migration figures, particularly the Pintail, Gadwall and Blue-winged teal. Cinnamon teal, which I note from records as being a rare occupant of the refuge, even during

migration, were very common and a slight increase in Green-winged Teal was noted.

The diving duck population, on the other hand, presented quite a sad picture and their numbers did not come even close to expectations. Very favorable conditions exist in attracting diving ducks to the refuge but their total populations this year were only 25 to 30 percent of figures on record for a few years ago.

Ruddy duck populations increased some ^{500%} 300 percent and their population will probably remain as summer residents.

A few large flocks of Sandhill Cranes were noted in migration, several hundred birds usually in a flock, but only a small flock of 27 cranes were known to have used the refuge in migration.

Six Canada geese were noted on Watts Lake but several flocks were noted in the vicinity of the refuge in migration.

Routine information on individual species may be secured by referring to the attached Form NR-1.

2. Food and Cover: An abundance of aquatic waterfowl food exists in all refuge waters. The principal species noted being utilized by waterfowl were Duck weed, Sago-pondweed, duck potatoe, 3-Square and Chara (Sp). With our early spring season, the waters also became warm earlier this year and stimulated early new growth of aquatic vegetation. Our present stock of vegetation is sufficient to handle easily four times our present waterfowl populations.

No supplementary feeding to waterfowl was undertaken since it was not necessary.

3. Disease: No botulism, lead poisoning or any other disease evidence was noted, and no losses to waterfowl of any kind occurred.

B. UPLAND GAME BIRDS

1. Population and Behavior: Our upland game birds consist of the Sharp-tailed grouse, Prairie Chicken and Chinese or Ring-necked pheasants on the Valentine Refuge. The Prairie Chicken appears to be holding their own on the refuge and according to reports from neighboring ranchers, are making new appearances in the vicinity surrounding the refuge. Quite an accurate count can be made of prairie chicken during the mating season, since their drumming can be heard for great distances.

Sharp-tailed Grouse populations appear to be consistent with last year and although comparative verbal reports with the previous year would indicate approximately the same count.

Ring-necked pheasant populations are greater than that of last year by about 12 percent. However, in areas within a radius of ten to fifteen miles of the refuge, their populations are reported as decreasing. It is quite possible that this ingress of pheasants is due to the more favorable habitat of the refuge and to the complete protection afforded by it. Pheasant populations are nesting early this year, as well as the grouse.

2. Food and Cover: An abundance of food and cover exists for upland game birds as well as for waterfowl. Some feeding was done, however, during January and February at the Hackberry, Pelican and Pony Lake feeding stations. Snow completely covered the ground for short periods and although the feeding was not actually necessary, it was considered advisable to attract a few pheasants for show purposes as well as to

keep them acquainted with the facilities of feeding to prevent their loss during any lasting storm.

Grouse used these feeding stations considerably and occasionally a Prairie Chicken was noted taking grain.

The feed used was a stock of mixed weevil infested grain of several years age. Only about six bushel of the grain received last year was fed which, incidentally, is approximately 90 percent oats.

3. Disease: No disease of any kind was noted in the upland game bird population.

C. BIG GAME ANIMALS

Habitat on the Valentine Refuge is not adapted to big game animals particularly, and although there are occasional mule deer reported to be seen and presumably summering on the refuge, their natural habitat are the National Forests a few miles to our west and to the south. Signs of two mule deer are presently noted on the Refuge.

D. FUR ANIMALS, PREDATORS AND MAMALS

Muskrat is our most important fur bearer and their population trend has been very favorable. Approximately ⁷/₈ 200 muskrat were harvested during the past trapping season and more than an adequate brooding stock remain. Conditions remaining normal throughout the coming season should enable us to harvest between 8000 and 9000 muskrat during the coming season and still maintain an adequate brood stock. Muskrat populations are quite evenly distributed except in the North, Middle and South Marsh Lake areas where their numbers are still heavy, but there should be no losses by migration unless we experience adverse water conditions. That doesn't seem possible this year.

Mink were trapped closely, as were the weasel.

Raccoon populations remain normal and the coyote population may be larger than for the corresponding period last year, even though 54 coyotes were taken by trappers during the past season. Since coyotes are beneficial in many respects, particularly in the control of rodents, I do not believe it is a good policy to trap them too closely in this vicinity. No predacity has been noted on waterfowl or upland game birds by coyotes.

Skunk appears to have increased substantially and is one of our most important predators to control currently and in the future. It is recommended that the share-trappers be given the entire skunk catch during the coming winter trapping season, as they have a local market for unskinned skunk and I believe this policy would stimulate their skunk trapping.

E. PREDACEOUS BIRDS

Our predatory birds are very few and unimportant, comparatively. Very few Magpies were noted and only small flights of ravens or crows. A few crows and ravens are remaining on the refuge apparently for the summer but the bulk of the migration continued to move northerly limits where cereal crops are available. Increasing numbers of both American and Red-breasted mergansers were noted in migration.

F. FISH

During the period when Gordon Creek carried considerable water which was in turn diverted into Hackberry Lake, several thousand bass, crappie, bullhead and blue-gill attempted to go upstream along with the carp. Our fish trap and the Nebraska State Fish and Game Commission's trap prevented them from reaching Gordon Creek but likewise prevented them from returning to Hackberry Lake so it was necessary for us to assist the State Game Commission in seining the various holes left in the canal, after the flow

receded, and return the game fish to the lakes.

No fish were lost during the winter in the lakes due to suffocation.

III REFUGE DEVELOPMENT & MAINTENANCE

A. PHYSICAL DEVELOPMENT

There were no new major work projects undertaken during the past period since funds nor personnel were not available. Several items of maintenance have been undertaken, including painting of the Newman and Pony Lakes sub-stations (partially completed), cleaning Gordon Creek Diversion Canal (40% of canal finished), fencing (completed as necessary for the present), road construction and maintenance (now underway), telephone line, equipment and windmill maintenance.

One of our gretest problems at present is a matter of getting any equipment for maintenance work as well as transportation for personnel and materials. Procurement of replacement parts is increasingly difficult. Our main source of supply is a small town some 40 miles from the refuge and the demand for parts greatly exceeds the supply.

Effects of the war are easily noticed on the maintenance of refuge improvements. With favorable conditions it will take at least a year to bring the improvements back to pre-war levels.

IV ECONOMIC USE OF REFUGE

A. GRAZING

Grazing permits in operation during the period covered by this report were as follows:

<u>Permittee</u>	<u>Permit No.</u>	<u>Area No.</u>	<u>AUM's</u>	<u>Total Fee</u>
L. C. Beel	12454	2A	56.62	\$ 23.37
Mrs. Sylvia Piercy	11241	16B	300.45	150.23
L. W. Harse	13564	21	1020.25	406.98
L. C. Beel Jr.	11216	22B	859.89	311.67
L. C. Beel	13563	23	193.26	96.63
W. W. & Sylvia Piercy	10483	26	826.13	380.02
Kurt Wendler	10448	27	1294.57	585.25
L. C. Beel	10484	28	<u>612.64</u>	<u>294.31</u>
			5163.81	2248.36

Feed lots in operation during the past period were as follows:

<u>Permittee</u>	<u>Permit No.</u>	<u>Lot No.</u>	<u>Total Fee</u>
C. A. Daniels	13686	1	\$8.60
L. C. Beel	12457	2	12.30
L. C. Beel	12460	2A	5.00
L. C. Beel	13681	3	23.40
L. W. Harse	12458	5	12.60
G. C. Young	13671	6	32.30
G. C. Young	9440	6A	10.20
G. C. Young	13671	6B	19.10
Chris Pedersen	13684	7	48.00
Kurt Wendler	13685	8	15.40
Graydon Anderson	13682	9	14.50
Sylvia Piercy	12455	10	6.90
L. W. Harse	12459	11	13.00
			\$ <u>221.30</u>

Only cattle were permitted to graze on the refuge during the past grazing season. A great deal of local pressure has been brought to bear on the refuge for grazing permits on refuge range lands. This can be accounted for by the fact that there are 20,000 more cattle in Cherry County today than there were one year ago. Local ranchers are heavily stocked and although prices are high on beef and they realize that they are over-stocked, they are reluctant to sell in view of present income tax rates. It is difficult to convince them that they can expect no great reduction in income tax without a drop in the price of cattle.

Many returning Servicemen are trying to get a start in the cattle business and are finding range lands almost impossible to buy or lease. Local civic officials have gone so far as to advocate turning over the refuge for homesteading by Servicemen although I think that this idea has been forgotten entirely recently.

B. HAYING

No haying was done during this period of course, but last season's hay was used in the feed lots and there is very little carry over. Proposals for letting out the meadows on an AUM basis for coming seasons are still pending.

C. FUR HARVEST

Trapping activities progressed very satisfactorily, and where difficulty was experienced last year in securing share-trappers, the situation may and probably will be reversed this year.

The refuge will necessarily have to be further sub-divided into units, depending on the trend of fur bearing populations, to enable the trappers to give the pelts the proper attention and to more thoroughly

do their job and to hold their income within reason. Living quarters and additional skinning and drying facilities as well will be necessary and our present plans include making them available.

Definite revision of the coming season's Fur Harvest Plan will depend on the populations trend and concentrations and will have to await a later census.

There is attached to Form NR-4 a detailed report of the fur taken; Permittees, areas, sex ratio, trapper's sales and average sale per species.

V PUBLIC RELATIONS

A. RECREATIONAL USES

Relaxation of gasoline and tire rationing with the termination of the war has greatly stimulated the people's desire for outings, such as picnic parties and fishing. Already this season our facilities are taxed to capacity and each weekend during April brought people from as far as Omaha to the refuge for bass fishing. Local families and people from Valentine utilized the Dewey and Hackberry Lake areas for picnics and fishing. This continued through week days to some extent but was more or less confined to the use of fishing areas.

Some excellent catches of bass were taken from the east end of Hackberry and Crappie, Bluegill and bullhead were taken in quantity from both Hackberry and Dewey Lakes. Both lakes are stocked adequately.

B. VIOLATIONS

No violations were encountered during the past period and no prosecutions are pending.

C. VISITORS


The following Federal and State Official visitors inspected the refuge during the past period:

<u>Name</u>	<u>Service</u>	<u>Date</u>	<u>Time Spent</u>
Mr. Taylor	FWS (Chgo)	2-27-46	$\frac{1}{2}$ Day
Mr. Gillett	FWS (MPLS)	2-27-46	$\frac{1}{2}$ Day
Mr. Huey	FWS (Mpls)	2-27-46	$\frac{1}{2}$ Day
Mr. Johnson	FWS (Mpls)	4-25-46	$\frac{1}{2}$ Day
Mr. Schwab	Iowa State Game	4-25-46	$\frac{1}{2}$ Day
Mr. Swift	Wisc. State Game	4-25-46	$\frac{1}{2}$ Day

Respectfully submitted,


Refuge Manager

Approved:


actg. Regional Director

MAY 24 1946

April 30 Inventory by Lake areas of Waterfowl & Shore birds

Species	Lake Area							
	Watts	Hackberry	Dewey	Clear	Willow	N.Marsh	M.Marsh	S.Marsh
Mallard	320	360	320	200	620	32	120	20
Gadwall	120	125	75	70	125	286	344	200
Baldpate	8	--	10	45	--	60	16	--
Pintail	--	10	170	60	--	14	16	--
Blue Wing Teal	15	550	360	180	120	88	187	200
Green Wing Teal	--	--	20	16	10	12	35	--
Cinnamon Teal	--	--	12	2	2	--	--	--
Shoveler	60	480	560	200	70	90	27	8
Redhead	--	10	40	36	140	78	40	--
Canvas Back	--	--	6	4	16	--	--	--
Lesser Scaup	8	60	20	--	215	14	12	6
American Goldeneye	--	--	6	--	--	--	--	--
Bufflehead	--	--	4	--	--	--	17	--
Ruddy Duck	--	--	290	40	6	25	19	--
American Merganser	--	12	120	40	30	--	--	20
Red-breasted Merganser	--	8	30	--	10	--	--	16
American Coot	120	600	800	200	400	156	88	180
Lesser Billed Curlew	--	--	4	2	1	4	2	2
White Pelican	--	--	2	225	--	--	--	--
Great Blue Heron	1	--	4	1	2	1	2	4
Black Cr. Night Heron	--	--	2	2	2	--	4	--
American Bittern	4	--	12	20	3	6	12	8
Least Bittern	--	--	2	6	--	--	--	--
Double-crested Cormorant	--	--	4	80	--	--	--	--
Virginia Rail	--	--	--	2	--	--	8	6
Western Grebe	8	--	60	10	--	--	--	--
Eared Grebe	--	--	2	--	--	--	--	--
Pied Billed Grebe	--	--	4	--	--	6	2	--
Florida Gallinule	--	--	2	8	2	--	2	--
Upland Plover	2	15	60	10	2	12	30	18
Wilson's Snipe	--	--	30	20	10	16	18	6
Western Willet	--	--	30	16	8	30	45	--
Greater Yellow Legs	--	--	20	--	--	--	--	--
Lesser Yellow Legs	--	--	80	30	10	20	38	6
Eastern Dowitcher	--	--	40	10	--	--	--	--
Marbled Godwit	--	200	60	--	50	--	--	--
Avocet	2	8	130	300	60	20	16	28
Wilson's Phalarope	--	--	220	40	--	--	20	9
Herring Gull	--	--	8	2	6	--	--	--
Ring-billed Gull	12	8	45	10	--	18	30	6
Franklin Gull	8	--	15	--	6	9	7	--
Forsters Tern	6	4	12	--	6	--	10	1
Arctic Tern (?)	1	--	3	--	--	--	1	--
Sora (?) (Sp)	--	--	--	2	20	--	--	--
Black Duck	--	--	--	--	--	17	2	--
Totals	696	2450	3694	1899	1952	1014	1170	744

696
1170

April 30 Inventory by Lake areas of Waterfowl & Shore Birds

Species	Lake Area							
	Center	21 Lake	Long	Sweetwater	Cow	Pony	West Twin	West Long
Mallard	40	18	20	210	44	32	38	24
Gadwall	36	16	30	280	18	52	196	6
Baldpate	2	24	--	82	--	16	11	--
Pintail	--	19	60	44	--	8	12	--
Blue Wing Teal	78	60	500	540	30	60	88	20
Green Wing Teal	--	6	60	40	4	--	--	--
Cinnamon Teal	--	--	--	--	--	--	--	--
Shoveler	--	20	60	78	24	8	12	8
Redhead	--	12	--	70	24	20	19	--
Canvas Back	--	--	--	--	--	--	--	--
Lesser Scaup	--	--	60	52	54	60	16	--
American Goldeneye	--	--	--	--	--	--	--	--
Bufflehead	--	--	--	--	--	2	24	--
Ruddy Duck	6 ¹⁶²	75	40 ⁵³⁶	66 ¹⁴⁶²	4 ²²¹	25	14 ⁴³⁰	58
American Merganser	--	--	--	--	--	8	--	--
Red-breasted Merganser	--	--	--	--	--	4	--	--
American Coot	50	68	100	200	36	222	280	52
Long-billed Curlew	2	4	--	18	2	--	4	2
White Pelican	--	--	--	--	--	--	--	--
Great Blue Heron	--	4	1	--	1	2	1	--
Black Cr. Night Heron	2	--	2	4	--	--	--	--
American Bittern	--	4	4	14	6	--	16	4
Least Bittern	--	--	1	6	--	--	2	--
Dbl-crested Cormorant	--	--	--	--	--	--	--	--
Virginia Rail	--	2	--	8	--	2	--	--
Western Grebe	--	--	--	--	--	--	--	--
Eared Grebe	--	--	--	--	--	--	--	--
Pied-billed Grebe	--	8	28	10	--	4	8	2
Florida Gallinule	--	--	--	--	--	--	--	--
Upland Plover	8	4	8	24	16	19	18	8
Wilson's Snipe	12	2	4	18	8	--	6	12
Western Willet	--	--	--	30	16	--	12	--
Greater Yellow Legs	--	18	--	20	--	--	10	--
Lesser Yellow Legs	--	--	--	--	--	15	--	--
Eastern Dowitcher	--	--	--	--	--	--	8	--
Marbled Godwit	--	--	--	32	32	--	12	--
Avocet	--	6	20	28	14	18	16	2
Wilson's Phalarope	--	6	8	26	--	10	--	8
Herring Gull	--	--	1	--	--	2	--	--
Ringed Gull	--	8	10	18	4	4	6	6
Franklin's Gull	2	--	--	12	--	2	1	2
Forresters Tern	8	--	1	8	6	8	--	1
Arctic Tern (?)	--	--	--	--	--	--	--	--
Sora (Sp)	--	--	--	--	--	--	--	--
Black Duck	--	--	--	--	--	--	--	--
	246	309	1018	1940	344	578	828	167

April 30 Inventory by Lake areas of Waterfowl & Shore Birds

Species	Devil's		Dads	Lake Areas		Whitewater School	TOTALS
	Punch Bowl	Mule		Pelican	Duck		
Mallard	60	--	1600	200	75	550	4923
Gadwall	66	--	75	75	--	200	2329
Baldpate	--	--	--	--	--	120	402
Pintail	--	--	300	90	20	10	433
Blue Wing Teal	50	--	1200	450	75	1100	5997
Green Wing Teal	--	--	12	20	2	6	243
Cinnamon Teal	--	--	--	--	--	--	18
Shoveler	30	--	75	240	12	45	2137
Redhead	--	--	320	--	--	30	839
Canvas Back	--	--	110	--	--	--	136
Lesser Scaup	--	--	20	10	--	15	622
Goldeneye	--	--	--	--	--	--	6
Bufflehead	--	--	--	--	--	--	47
Ruddy Duck	-- ²⁰⁴	--	10 ³⁷²²	18 ¹¹⁰³	-- ¹⁸⁴	18 ⁷⁰⁹⁴	556 ¹⁰³
American Merganser	--	--	8	--	--	8	246
Red-breasted Mergsr.	--	--	--	4	2	6	80
American Coot	36	--	1200	750	400	1800	7768
Long-billed Curlew	2	--	8	6	2	6	79
White Pelican	--	--	--	--	--	200	427
Great Blue Heron	2	--	--	2	1	8	38
Black Cr. Night Heron	--	--	--	4	--	4	26
American Bittern	--	--	--	8	4	10	143
Least Bittern	--	--	--	1	11	6	24
Dbl-crested Cormorant	--	--	--	--	--	--	84
Virginia Rail	2	--	--	4	2	30	68
Western Grebe	--	--	--	--	--	--	78
Eared Grebe	--	--	--	--	--	--	2
Pied-billed Grebe	--	--	--	6	4	10	92
Florida Gallinule	--	--	--	8	--	4	27
Upland Plover	10	8	--	20	18	24	344
Wilson's Snipe	12	10	--	16	20	18	246
Western Willet	--	8	18	12	10	--	257
Greater Yellow Legs	--	--	--	14	10	--	92
Lesser Yellow Legs	--	--	--	--	--	8	184
Eastern Dowitcher	--	--	--	--	--	10	70
Marbled Godwit	--	--	--	--	--	30	416
Avocet	4	--	40	30	--	40	792
Wilson's Phalarope	6	--	60	10	25	--	456
Herring Gull	--	--	--	2	--	--	21
Ringed Gull	1	--	45	20	2	20	289
Franklin's Gull	--	--	25	20	4	8	123
Forrester's Tern	--	--	18	20	--	8	71
Arctic Tern (?)	--	--	--	--	--	--	51
Sora (Sp)	**	--	--	--	--	--	22
Black Duck	--	--	--	--	--	--	19
	223	26	5206	2073	673	4407	31861

MIGRATORY BIRDS

Refuge ValentineMonths of January 1 to April 30, 1946

1612

(1) Species	(2) First Observed		(3) Became Common	(4) Peak Concentration		(5) Last Observed		(6) Young Produced			(7) Total
Common Name	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti- mated Total	Number Using Refuge
Canada Goose	---	4-10-46	(Occasional flock in the vicinity of the refuge)								0
White Fronted Goose	6	4-7-46	---	6	4-7-46	6	4-7-46				6
Mallard	5	2-21-46	2-21-46	9000	3-20-46	4920	4-30-46				48,000
Cadwall	2	2-25-46	3-5-46	7000	3-25-46	2400	4-30-46				15,000
Baldpate	25	3-10-46	3-10-46	3000	4-1-46	400	4-30-46				12,000
Pintail	4	3-10-46	3-10-46	6000	3-20-46	450	4-30-46				22,000
Green Winged Teal	6	3-5-46	3-5-46	1500	3-16-46	250	4-30-46				5,000
Blue Winged Teal	30	3-5-46	3-5-46	9000	3-20-46	6000	4-30-46				15,000
Cinnamon Teal	2	3-10-46	3-15-46	450	4-10-46	20	4-30-46				1,200
Shoveler	35	2-28-46	3-1-46	4000	4-10-46	2150	4-30-46				8,000
Black Duck	19	4-30-46	---	---	---	19	4-30-46				20
Redhead	1	3-10-46	3-15-46	1400	4-1-46	850	4-30-46				2,500
Canvas Back	2	3-10-46	3-15-46	400	4-10-46	150	4-30-46				1,000
Lesser Scaup	18	3-5-46	3-10-46	2500	4-1-46	640	4-30-46				4,000
American Goldeneye	6	3-16-46	3-16-46	30	4-1-46	6	3-20-46				100
Bufflehead	2	3-16-46	3-16-46	450	4-15-46	50	4-30-46				2,100
Ruddy Duck	35	3-16-46	3-16-46	1350	4-15-46	550	4-30-46				3,000
American Merganser	3	3-5-46	3-5-46	1400	3-20-46	250	4-30-46				4,000
Red-breasted Merganser	1	3-10-46	3-15-46	300	3-20-46	80	4-30-46				500
American Oost	30	3-15-46	3-15-46	9000	4-10-46	7700	4-30-46				25,000
Long-billed Curlew	2	3-16-46	3-16-46	160	4-10-46	80	4-30-46				450
Sand Hill Crane	27	3-8-46	---	27	3-8-46	27	3-8-46				27

REMARKS: (Pertinent information not specifically requested)

INSTRUCTIONS

Form NR-1 - MIGRATORY BIRDS (Include species in families Gaviidae through Strigidae; also doves and woodcocks)*

In case a resident form occurs, such as mottled duck on the Gulf Coast, use only the columns that apply.

- (1) SPECIES: Use correct common names as found in the A.O.U. Check List, 1931 Edition, and list in A.O.U. order. General terms are to be avoided, such as "scaup", "teal", etc.; use "green-winged teal" or "lesser scaup".
- (2) FIRST OBSERVED: The first refuge record for the species during spring migration, fall migration, wintering, or summering, and the number observed. In the case of resident species this column may be disregarded.
- (3) BECAME COMMON: The date the species became common on the refuge.
- (4) PEAK CONCENTRATION: The greatest number of the species present on any one date or limited interval of time.
- (5) LAST OBSERVED: The last refuge record for the species during the spring or fall migration, wintering, or summering, and the numbers observed exclusive of obvious cripples or non-migrants.
- (6) YOUNG PRODUCED: Estimated number of young produced based upon observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact are to be omitted.
- (7) TOTAL: Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the manner in which birds come through; i.e., in waves or all at once. On refuges representing the terminus of the flight lane, the figures would probably be the same in many cases.

* Only columns applicable to the period covered should be used.

Form NR-1

MIGRATORY BIRDS

Refuge Valentine Months of January 1 to April 30, 1946

1612

(1) Species	(2) First Observed		(3) Became Common	(4) Peak Concentration		(5) Last Observed		(6) Young Produced			(7) Total
Common Name	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti- mated Total	Number Using Refuge
White Pelican	3	3-15-46	3-15-46	2500	4-8-46	425	4-30-46				6000
Great Blue Heron	1	4-15-46	4-15-46	100	4-30-46	40	4-30-46				400
Black Crowned Night Heron	1	4-20-46	4-20-46	75	4-20-46	25	4-30-46				400
American Bittern	1	3-15-46	3-15-46	450	4-1-46	140	4-30-46				1600
Least Bittern	1	4-30-46	4-30-46	40	4-30-46	25	4-30-46				300
Double-crested Cormorant	80	3-15-46	3-15-46	120	3-20-46	85	4-30-46				600
Virginia Rail	2	4-30-46	4-30-46	150	4-30-46	70	4-30-46				200
Western Grebe	6	3-5-46	4-15-46	300	3-15-46	80	4-30-46				1200
Rare Grebe	1	4-30-46	4-30-46	40	4-30-46	2	4-30-46				100
Pied-billed Grebe	3	3-15-46	3-15-46	200	4-1-46	90	4-30-46				300
Florida Gallinule	1	3-10-46	3-20-46	50	5-10-46	25	4-30-46				130
Killdeer (Ringed Plover)	2	3-5-46	3-5-46	600	4-1-46	320	4-30-46				2000
Upland Plover	2	4-30-47	---	---	---	---	4-30-46				60
Wilson's Snipe	---	---	3-20-46	400	4-10-46	250	4-30-46				800
Western Willet	30	4-10-46	4-15-46	400	4-15-46	250	4-30-46				2200
Greater Yellow Legs	40	4-10-46	4-10-46	200	4-15-46	90	4-30-46				600
Lesser Yellow Legs	80	4-10-46	4-10-46	400	4-15-46	180	4-30-46				1500
Eastern Dowitcher	10	4-1-46	4-15-46	150	5-15-46	70	4-30-46				600
Marbled Godwit	18	4-20-46	4-20-46	1600	4-15-46	410	4-30-46				2200
Avocet	6	3-20-46	3-20-46	1300	4-20-46	790	4-30-46				3500
Wilson's Phalarope	---	---	4-15-46	600	4-20-46	450	4-30-46				1800
Herring Gull	---	---	4-20-46	100	4-20-46	21	4-20-46				500

REMARKS: (Pertinent information not specifically requested)

INSTRUCTIONS

Form NR-1 - MIGRATORY BIRDS (Include species in families
Gaviidae through Strigidae; also doves and
woodcocks)*

In case a resident form occurs, such as mottled duck
on the Gulf Coast, use only the columns that apply.

- (1) SPECIES: Use correct common names as found in the
A.O.U. Check List, 1931 Edition, and list
in A.O.U. order. General terms are to be
avoided, such as "scaup", "teal", etc.;
use "green-winged teal" or "lesser scaup".
- (2) FIRST OBSERVED: The first refuge record for the species
during spring migration, fall migration,
wintering, or summering, and the number
observed. In the case of resident species
this column may be disregarded.
- (3) BECAME COMMON: The date the species became common on the
refuge.
- (4) PEAK CONCENTRATION: The greatest number of the species present
on any one date or limited interval of time.
- (5) LAST OBSERVED: The last refuge record for the species
during the spring or fall migration,
wintering, or summering, and the numbers
observed exclusive of obvious cripples
or non-migrants.
- (6) YOUNG PRODUCED: Estimated number of young produced based
upon observations and actual counts on
representative breeding areas. Brood
counts should be made on two or more areas
aggregating 10% of the breeding habitat.
Estimates having no basis in fact are to
be omitted.
- (7) TOTAL: Estimated total number of the species using
the refuge during the period. This figure may
or may not be more than that used for peak
concentrations, depending upon the manner in
which birds come through; i.e., in waves or
all at once. On refuges representing the
terminus of the flight lane, the figures
would probably be the same in many cases.

* Only columns applicable to the period covered should be used.

Form NR-1

MIGRATORY BIRDS

Refuge ValentineMonths of January 1 to April 30, 1946

1612

(1) Species	(2) First Observed		(3) Became Common	(4) Peak Concentration		(5) Last Observed		(6) Young Produced			(7) Total
Common Name	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti- mated Total	Number Using Refuge
Ring-billed Gull	6	3-10-46	3-20-46	750	4-20-46	289	4-30-46				1800
Franklin's Gull	2	3-15-46	3-20-46	275	4-20-46	125	4-20-46				1000
Forrester's Tern	1	4-1-46	4-5-46	80	4-30-46	80	4-30-46				450
Arctic Tern (?)	5	3-15-46	---	---	---	50	3-15-46				200
Western Mourning Dove	2	4-20-46	4-20-46	360	4-30-46	360	4-30-46				800
Golden Eagle				PERMANENT RESIDENT							8
Bald Eagle				PERMANENT RESIDENT							4
Northern Raven			3-15-46								300
Eastern Crow				PERMANENT RESIDENT							1500
American Magpie				PERMANENT RESIDENT							30
Bronzed Grackle	6	3-12-46	3-15-46	1000	4-15-46	200	4-30-46				3000
Yellow-headed Blackbird	1	4-5-46	4-10-46	3000	4-15-46	800	4-30-46				15000
Red-winged Blackbird	30	3-12-46	3-15-46	8000	4-10-46	2000	4-30-46				40000
Downy Woodpecker				PERMANENT RESIDENT							120
Swainson's Hawk	1	4-30-46									
Marsh Hawk	2	4-15-46	4-20-46	---	---	---	4-30-46				10
Sparrow Hawk	1	4-30-46	---				---				
Rough-legged Hawk				PERMANENT RESIDENT							15
Horned Owl				PERMANENT RESIDENT							30
Burrowing Owl	2	4-20-46	---	---	---	---	4-30-46				30
Red-shafted Flicker				PERMANENT RESIDENT							45
Western Meadow Lark	2	4-5-46	4-5-46	2500	4-30-46	2500	4-30-46				7500

REMARKS: (Pertinent information not specifically requested)

INSTRUCTIONS

Form NR-1 - MIGRATORY BIRDS (Include species in families Gaviidae through Strigidae; also doves and woodcocks)*

In case a resident form occurs, such as mottled duck on the Gulf Coast, use only the columns that apply.

- (1) SPECIES: Use correct common names as found in the A.O.U. Check List, 1931 Edition, and list in A.O.U. order. General terms are to be avoided, such as "scaup", "teal", etc.; use "green-winged teal" or "lesser scaup".
- (2) FIRST OBSERVED: The first refuge record for the species during spring migration, fall migration, wintering, or summering, and the number observed. In the case of resident species this column may be disregarded.
- (3) BECAME COMMON: The date the species became common on the refuge.
- (4) PEAK CONCENTRATION: The greatest number of the species present on any one date or limited interval of time.
- (5) LAST OBSERVED: The last refuge record for the species during the spring or fall migration, wintering, or summering, and the numbers observed exclusive of obvious cripples or non-migrants.
- (6) YOUNG PRODUCED: Estimated number of young produced based upon observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact are to be omitted.
- (7) TOTAL: Estimated total number of the species using the refuge during the period. This figure may or may not be more than that used for peak concentrations, depending upon the manner in which birds come through; i.e., in waves or all at once. On refuges representing the terminus of the flight lane, the figures would probably be the same in many cases.

* Only columns applicable to the period covered should be used.

Form NR-1

MIGRATORY BIRDS

Refuge Valentine Months of January 1 to April 30, 1946

1612

(1) Species	(2) First Observed		(3) Became Common	(4) Peak Concentration		(5) Last Observed		(6) Young Produced			(7) Total
Common Name	Number	Date	Date	Number	Date	Number	Date	No. Broods Obsvd.	Avg. Size	Esti- mated Total	Number Using Refuge
Texas Horned Lark	--	--	3-20-46	3000			4-30-46				200
Bunting Lark	8	4-15-46	4-15-46	---	---	---	---				---
Barn Swallow	6	4-10-46	4-10-46	75	4-20-46	---	4-30-46				150
Prairie Marsh Wren			4-20-46	800	4-20-46	200	4-30-46				1200
Brown Thrasher	---	---	4-30-46	---	---	---	---				---
Western Robin	4	3-20-46	3-20-46	200	4-10-46	120	4-30-46				1000
Thrush (Sp)	---	---	4-20-46	---	---	---	---				---
Myrtle Warbler	---	---	4-30-46	---	---	200	4-30-46				---
Yellow Warbler	4	4-20-46	4-20-46	---	---	---	4-30-46				---
Northern Shrike	1	4-30-46	---	---	---	---	---				---
Towhee (Sp)	---	---	4-20-46	---	---	---	4-30-46				---
State Colored Junco											

PERMANENT RESIDENT

REMARKS: (Pertinent information not specifically requested)

INSTRUCTIONS

Form NR-1 - MIGRATORY BIRDS (Include species in families
Gaviidae through Strigidae; also doves and
woodcocks)*

In case a resident form occurs, such as mottled duck
on the Gulf Coast, use only the columns that apply.

- (1) SPECIES: Use correct common names as found in the
A.O.U. Check List, 1931 Edition, and list
in A.O.U. order. General terms are to be
avoided, such as "scaup", "teal", etc.;
use "green-winged teal" or "lesser scaup".
- (2) FIRST OBSERVED: The first refuge record for the species
during spring migration, fall migration,
wintering, or summering, and the number
observed. In the case of resident species
this column may be disregarded.
- (3) BECAME COMMON: The date the species became common on the
refuge.
- (4) PEAK CONCENTRATION: The greatest number of the species present
on any one date or limited interval of time.
- (5) LAST OBSERVED: The last refuge record for the species
during the spring or fall migration,
wintering, or summering, and the numbers
observed exclusive of obvious cripples
or non-migrants.
- (6) YOUNG PRODUCED: Estimated number of young produced based
upon observations and actual counts on
representative breeding areas. Brood
counts should be made on two or more areas
aggregating 10% of the breeding habitat.
Estimates having no basis in fact are to
be omitted.
- (7) TOTAL: Estimated total number of the species using
the refuge during the period. This figure may
or may not be more than that used for peak
concentrations, depending upon the manner in
which birds come through; i.e., in waves or
all at once. On refuges representing the
terminus of the flight lane, the figures
would probably be the same in many cases.

* Only columns applicable to the period covered should be used.

Refuge ValentineMonths of January 1 to April 30, 1946

(1) Species	(2) Density	(3) Young Produced	(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks	
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd. Estimated Total	Percentage	Hunting	For Re- stocking	For Research	Estimated number using Refuge	Pertinent information not specificioally requested. List introductions here.
<u>Grouse</u> Sharp-tailed	70,000	140						500	
Pinnated or Prairie Chickens	70,000	1000						50	
<u>Pheasant</u> Ring-necked	70,000	20						3500	

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

- (1) SPECIES: Use correct common name.
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.
- (4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.
- (5) REMOVALS: Indicate total number in each category removed during the report period.
- (6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.
- (7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

* Only columns applicable to the period covered should be used.

Refuge Valentine National Wildlife RefugeApril 30, 1946

(1) Species	(2) Density		(3) Removals					(4) Disposition of Fur							(5) Total Popula- tion
Common Name	Cover Types & Total Acreage of Habitat	Acres Per Animal	Hunting	Fur Harvest	Predator Control	For Re- stocking	For Research	Share Trapping			Total Refuge Furs Shipped	Refuge Income	Furs Donated	Furs Destroyed	
								Permit Number	Trappers' Share	Refuge Share					
Mink	UNIT # 1			1				T-2286	0	1	1				
Muskkrat				1354					682	672	672				
Muskkrat	UNIT # 2			1042				T-2303	524	524	524				
Mink	Unit # 3			17				T-2284	8	9	9				
Muskkrat				1164					1164	1149	1149				
Coyote					21				21	--	--				
Skunk					4				2	2	2				
Raccoon				4					3	1	1				
Civit					1				1	--	--				
Weasel					4				4	--	--				
Badger				1					--	1	1				
Muskkrat	UNIT # 4			501				T-2283	250	250	250				
Skunk					4				3	1	1				
Muskkrat	UNIT # 5			845				T-2287	426	419	419				
Mink				5					2	3	3				
Coyote					11				11	--	--				
Skunk					4				4	--	--				
Raccoon				3					2	1	1				
Badger				1					1	--	--				

REMARKS:

1615

INSTRUCTIONS

Form NR-4 - SMALL MAMMALS (Include data on all species of importance in the management program; i.e., muskrats, beaver, coon, mink, coyote. Data on small rodents may be omitted except for estimated total population of each species considered in control operations.)

- (1) SPECIES: Use correct common name. Example: Striped skunk, spotted skunk, short-tailed weasel, gray squirrel, fox squirrel, white-tailed jackrabbit, etc. (Accepted common names in current use are found in the "Field Book of North American Mammals" by H. E. Anthony and the "Manual of the Vertebrate Animals of the Northeastern United States" by David Starr Jordan. "List of North American Recent Mammals" by G. S. Miller, Jr., a very good reference, is now out of print, although a revision is scheduled for publication in the near future.)
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.) Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottom land hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) REMOVALS: Indicate the total number under each category removed since April 30 of the previous year. Also show any removals not falling under heading listed.
- (4) DISPOSITION OF FUR: On share-trapped furs list the permit number, trapper's share, and refuge share. Indicate the number of pelts shipped to market and the total income to the refuge by species, including share-trapped furs and furs taken by Service personnel. Total number of pelts of each species destroyed because of unprimeness or damaged condition, and furs donated to institutions or other agencies should be shown in the column provided.
- (5) TOTAL POPULATION: Estimated total population of each species reported on as of April 30.

REMARKS:

Indicate inventory method(s) used, size of sample area(s), introductions, and any other pertinent information not specifically requested.

Refuge Valentine National Wildlife Refuge

April 30, 1946

(1) Species	(2) Density	(3) Removals					(4) Disposition of Fur					(5) Total Popula- tion		
Common Name	Cover Types & Total Acreage of Habitat	Acres Per Animal	Hunting	Fur Harvest	Predator Control	For Re- stocking	For Research	Share Trapping		Total Refuge Furs Shipped	Refuge Income	Furs Donated	Furs Destroyed	
								Permit Number	Trappers' Share					
Mustelrat Must Coyote Skunk Procyon Civitt Neotom Badger	UNIT # 6			1186 25	22 10			1-2285	601 12 22	585 13 1	585 13 1			
	TOTAL ALL UNITS			7246 48	54 22			ALL	3647 22 54	3599 26 16	3599 26 16			
				9	3				2	1	1			
				1300	5				3755	3599	3599			
											FIGURES NOT YET AVAILABLE			
												NONE		
												NONE		
														6520
														175
														45
														75
														175
														45
														6

REMARKS:

INSTRUCTIONS

Form NR-4 - SMALL MAMMALS (Include data on all species of importance in the management program; i.e., muskrats, beaver, coon, mink, coyote. Data on small rodents may be omitted except for estimated total population of each species considered in control operations.)

- (1) SPECIES: Use correct common name. Example: Striped skunk, spotted skunk, short-tailed weasel, gray squirrel, fox squirrel, white-tailed jackrabbit, etc. (Accepted common names in current use are found in the "Field Book of North American Mammals" by H. E. Anthony and the "Manual of the Vertebrate Animals of the Northeastern United States" by David Starr Jordan. "List of North American Recent Mammals" by G. S. Miller, Jr., a very good reference, is now out of print, although a revision is scheduled for publication in the near future.)
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.) Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottom land hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) REMOVALS: Indicate the total number under each category removed since April 30 of the previous year. Also show any removals not falling under heading listed.
- (4) DISPOSITION OF FUR: On share-trapped furs list the permit number, trapper's share, and refuge share. Indicate the number of pelts shipped to market and the total income to the refuge by species, including share-trapped furs and furs taken by Service personnel. Total number of pelts of each species destroyed because of unprimness or damaged condition, and furs donated to institutions or other agencies should be shown in the column provided.
- (5) TOTAL POPULATION: Estimated total population of each species reported on as of April 30.

REMARKS:

Indicate inventory method(s) used, size of sample area(s), introductions, and any other pertinent information not specifically requested.

Fur Harvest Report
Valentine National Wildlife Refuge

Unit No. 1 A. H. Vrinders, Permit No. T-2286

	Muskrat		Mink		Coyote		Skunk		Coon		Civit		Weasel		Badger		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Sweetwater Lake	161	143	1														305
21 ¹ / ₂ Marsh Lake	308	203															511
Cow Lake	30	18															48
Center Lake	279	212															491
Total	778	576	1														1355
Trapper's Share	682																682
Refuge Share	672		1														673
Total	1354		1														1355
Total Trapper sale	\$1,568.60																\$1,568.60
Average	\$2.30																

Unit No. 2 George Johnson, Permit No. T-2303

Pony Lake	491	365															856
South Marsh Lake	107	85															192
Total	598	450															1048
Trapper's Share	524																524
Refuge Share	524																524
Total	1048																1048
Total Trapper sale	\$1,191.60																\$1,191.60
Average	2.27																

Unit No. 3 Claude Hamilton, Permit No. T-2284

North Marsh Lake	802	549	4	3	2	12		1	3	1		2					1379
Middle Marsh Lake	554	408	6	4	1	6	2	1	1			2			1		986
Total	1356	957	10	7	3	18	2	2	3	1	1	4			1		2365
Trappers Share	1164		8		21		2		3		1	4					1203
Refuge Share	1149		9				2		1						1		1162
Total	2313		17		21		4		4		1	4			1		2365
Total Trapper Sale	\$2584.08		\$216.		\$78.96		\$4.50		6.48		2.00		6.50				\$2900.75
Average	\$2.22		27.00		3.76		2.25		2.16		2.00		1.62				

Fur Harvest Report
Valentine National Wildlife Refuge

Unit No. 4 Donald Junod, Permit No. T-2283

	Muskrat		Mink		Coyote		Skunk		Coon		Civit		Weasel		Badger		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
West Twin Lake	48	28					2										78
Micheel Lake	7	5															12
Dewey Lake	121	89					2										212
Calf Camp Marsh	42	26															68
Little Hog Lake	52	38															90
Pot Holes	27	17															44
Total	297	203					4										504
Trappers Share	250						3										253
Refuge Share	250						1										251
Total	500						4										504
Total Trapper sales	\$551.75						5.00										\$556.75
Average	2.21						1.66										

Unit No. 5 Ted Ferguson, Permit No. T2287

Mule Lake	128	28			4	2											62
Dads Lake	128	88		3	2												216
West Long Lake	81	59															145
Duck Lake							1	2							1		4
Rice Lake	93	64			1	2	1										161
Pelican Lake	141	131	1	1					2	1							275
Pot Holes	3																3
Total	475	370	1	4	7	4	2	2	2	1					1		866
Trappers Share	426		2		11		4		2						1		444
Refuge Share	419		3		0		0		1						0		422
Total	845		5		11		4		3						1		866
Total Trapper Sales	\$977.75		40.00		44.00		8.00		2.00						1.50		\$1073.25
	2.29		20.00		4.00		2.00		1.00						1.50		

Fur Harvest Report
Valentine National Wildlife Refuge

Unit No. 6 Everett Stillwell, Permit No. T-2285

	Muskrat		Mink		Coyote		Skunk		Coon		Chit		Weasel		Badger		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Whitewater Lake	59	39															96
Hackberry Lake	208	131	4	2	4	2	2	5	1	1	1				1		362
Dewey Marsh	238	189	3	3	1		1										435
Watts Lake	173	147	6	3	8	4											341
Dewey Lake	3	1	2	2	1	2	2				1		1	1			16
Total	679	507	15	10	14	8	5	5	1	1	2		1	1		1	1250
Trappers Share	601		12		22		7		1		1		2		1		647
Refuge Share	585		13		0		3		1		1		0		0		603
Total	1186		25		22		10		2		2		2		1		1250
Total Trapper Sales	\$1380.50		297.00		74.00		14.00		1.50		1.50		4.00		1.00		\$1774.00
Average	2.30		24.75		3.36		2.00		1.50		1.50		2.00		1.00		

Refuge Sex Ratio

M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
58%	42%	57%	43%	45%	55%	60%	40%	66%	33%	100%		83%	17%		100%

Refuge Total

7246		48		54		22		9		3		6		3		7391
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Trappers sales

Unit No. 1	\$1568.60																\$1568.60
Unit No. 2	1191.60																1191.60
Unit No. 3	2586.25		216.00		79.00		4.50		6.50		2.00		6.50				2900.75
Unit No. 4	551.75						5.00										556.75
Unit No. 5	977.75		40.00		44.00		8.00		2.00					1.50			1073.25
Unit No. 6	1380.50		297.00		74.00		14.00		1.50		1.50		4.00		1.00		1774.00
Totals	\$8256.45		553.00		197.00		31.50		10.00		3.50		10.50		2.50		\$9064.95





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UNIT NO. 100

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ИСКРОМЪ ГИКО

Муниципалітету

UNIT NO. 8 ERECT STEELWORK, PERMIT NO. 1-55825

Volunteering National Wildlife Refuge
EUL HARVEST ROBERT

[illegible]