ROUTING SLIP DIVISION OF WILDLIFE REFUGES DATE: 1/26/ 1945

____ MR. SALYER _____ ____ SECTION OF HABITAT IMPROVEMENT:

____ MR. ELMER _____ Mr. ~~Griffith~~ REG 2-1

_____ _____ ~~Dr. Bourn~~ WSB 2-28-45

_____ _____ ~~Miss Cook~~ SWC 1-29-45

____ SECTION OF OPERATIONS: ____ SECTION OF LAND MANAGEMENT:

~~Mr. Krummes~~ WF 2/13 ~~Mr. Harrishaw~~ [illegible]

~~Mr. Regan~~ HJR 2/23/45 Mr. ~~DuMont~~ PAD 2/23

Miss Baum _____ _____ _____

____ SECTION OF STRUCTURES: ____ STENOGRAPHERS:

~~Mr. Taylor~~ [illegible] 2/28 ak. 3-8-45 _____

_____ _____ _____ _____

REMARKS: Moosehorn

Narrative

Sept-Dec. 1944

Return to: _____

125

IN REPLY REFER TO

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Moosehorn National Wildlife Refuge
Calais, Maine.

February 19, 1945

Mr. S. B. Locke, Regional Director,
Fish and Wildlife Service,
Boston, Mass.

Dear Mr. Locke:

In compliance with request contained in your letter of the 15th. inst. regarding information from this refuge on predaceous birds for this calendar year, please be advised that NR-1 forms for the period September to December, inclusive, submitted should be amended so as to include the following information:

Although ravens, crows, owls, bald eagles and other predaceous birds are plentiful on the refuge, so far they have given us no trouble and no control of any of the species is at present recommended.

Very truly yours,

BES.

Bertrand E. Smith
Refuge Manager

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Very truly yours,

Bertrand E. Smith
Refuge Manager

MOOSEHORN NATIONAL WILDLIFE REFUGE
SEPTEMBER, OCTOBER, NOVEMBER, DECEMBER
1944

1. GENERAL.

A. Weather Conditions.

Precipitation

	Mean	Normal	Max Temp.	Min. Temp.
September	7.65	2.75	78	40
October	5.13	5.55	73	27
Novem ber	4.53	3.32	63	24

December (No records received at time of submitting report.)
Readings from U. S. Dept. of Commerce, Weather Bureau, Eastport. Me.

B. Water Conditions. After the extremely dry, hot summer weather came the fall rains that kept up for days with the result that everything from swamp hole to lakes was filled to overflowing.

C. Fires. No fires during this period.

11. WILDLIFE.

A. Migratory Birds. My notes indicate that woodcock seem to be scarce up to September 27th. (Full moon October 1.) from that date on they seemed to be plentiful. The birds that showed up the very last of September were undoubtedly all native woocock. This so-called flight was simply a local shifting of birds from breeding to flight covers. (My opinion). We had a snowstorm and freezeup October 21st. which undoubtedly forced most of the local birds to the south. We had a big snowstorm again on the 29th. and it came on very cold and froze everything solid. It was over the full of the moon that the woodcock just piled into covers. It was in fact one of the heaviest flights of woocock I have seen since I have been on the refuge. They might all have been birds from territory to the north of us. Woodcock shooting in covers on land inside the refuge (not Government-owned) was the best in many years according to Chief Warden Clark, and he should know as he hunted these covers every day during the open season. He told me he hunted some in New Brunswick and found good hunting. Speaking of training a dog, he says that his dog "Spot" retrieved over 200 woodcock this season. He has another dog "Pete" he didn't say whether he killed any over this dog or not.

B. Waterfowl- I was very glad to read that there is a large increase in waterfowl over previous years as it may help to make up for the deficiency in this section of the country. There weren't any ducks in this section this fall. I thought there were a few black ducks early in the season but after the heavy rain September 15th. you could not find a duck. There weren't any flight birds, such as Goldeneye, Scaup and Black Ducks, and it is worth of note that I did not see a single Blue-bill (Scaup). I also wish to mention the fact that during my annual trip down the Dennys River by canoe to get a census of Atlantic Salmon Redds I did not see a Bluebill or Ring-neck, and the total of ducks seen were two Black, eleven Red-breasted Merganzers. This river is usually full of Ring-necks during this period.

111. REFUGE DEVELOPMENT AND MAINTENANCE.

A. Physical Development. Some very beneficial results have been attained this quarter through the use of Project 11 funds. Since September, three men have been kept constantly at work removing and burning slash from some of our cut-over areas, not only removing a dangerous fire hazard but improving some of our wildlife habitat. During the summer and early fall the forests became so dry the Governor of Maine deemed it advisable to place a ban on the building of any fires in the woods, therefore, it was not practical nor possible to do any experimental burning during this period. After the first good rain the ban was lifted and we were in hopes to do a little additional experimental burning but this was made difficult by the fact that it rained enough every day to keep the ground so wet that burning for blueberry cultivation and cover development was very difficult, however, several additional acres were burned over with excellent results. A few acres were burned a short distance west of headquarters. This area, an abandoned blueberry field, was once part of one of our very best woodcock covers. First we are conditioning it as a blueberry area and then by permitting it to grow up it will be a woodcock cover again.

In order to make the large area, both north and south of headquarters road, accessible to development and to provide additional protection in case of fire, work was begun building a road from headquarters to connect with U. S, Highway No. 1 on the North. Later on a road will be continued to the South of headquarters. Sufficient work has already been done to permit travel three quarters of the way through by truck. Water storage holes were made along the road for use in case of fire in this section.

We burned over a greater part of Magurrewock Marsh in order to remove vegitation and to facilitate plowing and planting that area with aquatic plant foods. Plowing the marsh was extremely difficult. It was not only full of potholes, but full of large rocks and logs and debris of all kinds sunken im the marsh.

By using the tractor to plow and the Bulldozer to pull the tractor out of the potholes, we were able to plow and harrow approximately thirty acres, all on the west side of the marsh. Six bushels of wild rice seeds gathered at Main Stream, Maine, were planted in sections of the marsh. We also planted wild celery tubers and three-square roots gathered at Missisquoi, Vermont, and sent to us by Jay Gashwiler. The celery tubers were planted in both branches of Magurrewock Stream in excellent places at the head of the marsh.

Considerable work was also done in removing the fire hazzard along the north side of the refuge at Edmunds. This was where the fire occurred in 1943.

A canopy was built over the gas tank at Edmunds, and one is being built here at Moosehorn.

The bridge over Mahar Brook, on the lower road, broke and had to be repaired. Considerable gravel was hauled onto Refuge roads to repair washouts caused by the heavy rains.

IV. ECONOMIC USES OF THE REFUGE.

We had very few cranberries to sell this year owing to the heavy killing frost in June and to the work being done on Magurrewock Marsh.

A. Grazing. We derive some benefit to our woodcock covers from grazing cattle and for this reason people were encouraged to pasture cattle on the Refuge.

B. Haying . Most of the hay was sold and removed from the fields of the refuge thus eliminating the fire hazzard as well as obtaining some revenue.

C. Wood. We haven't sold as much fuel wood this quarter as usual, on account of the labor shortage and the difficulty in obtaining horses to yard but and trucks to haul it away. However, sufficient wood was sold to improve a considerable amount of wildlife habitat.

V. FIELD INVESTIGATIONS AND APPLIED RESEARCH.

A. Food and Cover. About thirty acres of Magurrewock Marsh was plowed and planted to wild rice, celery, millet, smartweed and bulrush. The seeding should do very nicely as the work of planting the marsh was done in the best possible manner. The job was very difficult and the plow was broken many times on large rocks that had evidently been hauled out on the ice when the farm lands adjacent to the marsh were cleared The rocks could have gotten there in no other way.

At the time Magurrewock Marsh was planted with aquatic plant foods Vose and Cranberry Lakes were also planted to wild rice. We planted one bushel of rice from Merrymeeting Bay and five bushels gathered from Main Stream.

B. Upland Game Birds. As previously reported, I have kept very close watch on the ruffed grouse situation and I am pleased to report that there seems to be a little improvement, but nothing to brag about yet.

There continues to be an improvement in the Snowshoe Rabbit situation. There are about three times as many rabbits this fall as last. The habitat improvement work on the refuge may account for some of the increase. In any event, we hope the improvement continues.

C. Big Game Animals. I visited the moose territory on the refuge this fall and I am very sorry to report that I found no signs. No habitat improvement work has been done as yet in this section. Saw one moose on November 9th. in a cutting on the Meddybemps Road.

Deer did not seem to be quite as plentiful as last year. The meat shortage has created an enormous amount of poaching, not only in this section but all over the State of Maine.

Found another new black bear den. I have not been near it since I found it, therefore, do not know whether it is occupied or not.

2. Food and Cover. There is a plentiful supply of food and cover for big game animals on this refuge.

D. Fur Animals. Beaver have become plentiful on this area, and they have taken over every stream of any size on the refuge. They have even taken over the northwest shore of Cranberry Lake. It will be extremely interesting to note what benefits or damage these animals do to the Refuge property if left alone to carry on undisturbed and until such time as it is known that they are doing damage they should be left unmolested.

F. Fishing. No fishing this period.

VI. PUBLIC RELATIONS.

A. Recreational Area . The recreational area at Edmunds was used more than one would suppose during this period.

B. Quite a few people visited the Refuge during this quarter. Refuge Inspector McNamara came to the Refuge in November and inspected both the Moosehorn and Edmunds areas for the first time.

F. Violations. This was the very worst year we have had for violations. It has been very difficult for people to get meat and this fall the deer have had to take wholesale slaughter.

Conditions were such that the State Game Wardens were unable to cope with the situation. So far as the Refuge is concerned, they began hunting the first of June and they are still at it. Christmas night they killed two or three deer. The next morning I found where they had been killed.the night before. On the night of November 10th., assisted by State Game Warden Lloyd Clark, we caught John Dana, of West Medford, Mass., Frank Samu, of Revere, Mass., and Bertrand Cloney Calais, Maine, hunting deer at night with a jacklight. All three were taken before Judge Leighton, Woodland, Maine, and after pleading guilty, to a charge of night-hunting, were fined $50.00 and cost of $7.70 each. All firearms and ammunition were confiscated. One of the rifles was a new 25-3000 Savage.

On the night of November 6th. I received a telephone call from Chief Warden Clark that a boy by the name of Harry Stanhope, aged 16, was lost while hunting deer in the woods somewhere in the Meddybemps Lake section. We experienced one of the worst snowstorms of the season on that date, but Warden Clark and I started out hunting for the boy, and to make a long story short, we found him in an old abandoned camp about one half a mile east of Meddybemps Lake. He was wet and almost frozen when we found him. He said he had tried to build a fire but fell exhausted and slept until we found him. We brought him out of the woods to a farmhouse where we got some hot drink and food into him, and then he was taken to his home.

Respectfully submitted,

B. E. Smith

Bertrand E. Smith
Refuge Manager

Moosehorn National Wildlife Refuge
Edmunds Unit, Edmunds, Maine
January 1, 1945

Mr. Bertrand E. Smith
Moosehorn National Wildlife Refuge
Calais, Maine

Dear Mr. Smith,

Following is my report for period September 1 to December 31, 1944:

I feel safe in reporting an increase of 30% in woodcock in this section this past season. About September 21, just after having a heavy rain, a marked increase in woodcock was noticed in the covers on area. Covers on the area were checked four or five times and birds were plentiful during the week of October 16 to 22. I was on annual leave and went woodcock shooting daily. I had hunted the same covers yearly for the past few years and from my experience in finding birds this last season in these covers I drew my conclusion on the increase. Other hunters that I am acquainted with also found an increase and some even thought there was a 50% increase. The first flight birds were noticed October 23. The peak flight in this area was on November 1 to November 3. The last woodcock noticed on the area was on November 9.

Canada Geese were noticed in flight from September 30 to November 20. Peak flight probably November 19 and 20.

About 2000 Brant were noticed flying over area in flocks of 200 to 300 on October 1, 1944. These were the only Brant seen flying over area this fall and was the first time they were seen by me passing over area.

The first ducks to come to salt water were seen September 29. Peak flight about December 1 in this section.

Ruffed Grouse ~~were~~ scarce and on the area probably held their 1943 level. An increase in Spruce Grouse was noticed.

The Red Fox is on the increase both on and near the area.

The colony of beaver are still ~~alive~~ active on area. Several dams have been built and part of these have been deserted.

I feel safe in reporting a slight increase in deer. This could be caused by a C.B. recreational camp being built close to the area and the deer migrated to the refuge. The rutting season was late due to mild weather this fall.

About 1200 people used the recreational area this period.

The weather was extremely mild this fall. On November 29, 1944 I found a blue violet in full blcom.

About 3/4 of a mile along West side of area was cleared of slash and piled up

for burning. This area was where fire was stopped on area two years ago. Fire trails were bushed out and most all of trails had a sign put up at entrance.

Practically all slash was burned on area that would be a fire hazard.

The last week in December brought a snow storm of about seven inches and a fairly heavy crust which will probably cause the deer to go in yards.

Very truly yours,

Earle H. Dudley

Earle H. Dudley
Moosehorn National Wildlife Refuge
Edmunds Unit, Edmunds, Maine

Form NR-1

MIGRATORY BIRDS

Refuge [redacted] Months of September to December, inc. 1944

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
Woodcock	Breed here					41	11/1/44				20100
Wood duck	Saw none this fall.					31	10/27/44				35
Ringneck	Breed here										
Pintail	Saw none this fall.										
Mourning Dove	" " " "										
Canada Geese	" " " "										
Green Winged Teal	Very few seen this fall.					6	10/29/44				7
Blue Winged Teal	Breed here			3	10/16						10
Black Duck	" "					18	11/3/44				60
Goldeneye, American				60	10/31						
Bufflehead						3	10/31/44				6
Red Breasted Merganser						23	11/2/44				42
American Great "						30	11/3/44				
Hooded "	Bred here.										
Brant	None seen here this fall.										
Scaup	" " "		" "								

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-2 UPLAND GAME BIRDS 1613

Refuge ~~Moosehorn National Wildlife~~ Months of ~~Sept.~~ to ~~Dec., inc.~~, 194~~4~~

(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 specifically requested. List introductions here.
Spruce Grouse	500 Acres, soft wood swamp.	42	1	9					18	
Ruffed Grouse	9000 Acres. Upland wood and reverting agricultural lands.	4½	3	10					2030	

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.

1613

Form NR-3

BIG GAME

Refuge Moosehorn National Wildlife Year 1945

(1) Species	(2) Density	(3) Young Produced	(4) Removals				(5) Losses			(6) Introductions		(7) Estimated Total Refuge Population as of Dec. 31	(8) Sex Ratio
Common Name	Cover types, total Acreage of Habitat	Number	Hunting	For Re-stocking	Sold	For Research	Predation	Disease	Winter Losses	Number	Source		Percentage
Whitetail Deer	9000 Acres Upland hardwood & alder Reverting Agricultural lands 603 Acres. Swamp lands 12200 Acres	500	0	0	0	0	75	?	50	0		1800	70% Does.
Moose	Same.	?	0	0	0	0	?	?	?	?		6	?
Black Bear	"	10	0	2	0	0	0	1				30	Even
Wildcats	"	15	0	0	0	0	0	0	0	0	?	50	"

1614

INSTRUCTIONS

Form NR-3 - BIG GAME

(1) SPECIES: Use correct common name; i.e., Mule deer, black-tailed deer, white-tailed deer. It is unnecessary to indicate sub-species such as northern or Louisiana white-tailed deer.

(2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.) exclusive of fenced herds. Detailed data may be omitted for species occuring 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 total number of young produced on refuge.

(4) REMOVALS: Indicate total number in each category removed during the year.

(5) LOSSES: On the basis of known records or reliable estimates indicate total losses in each category during the year.

(6) INTRODUCTIONS: Indicate the number and refuge or agency from which stock was secured.

(7) TOTAL REFUGE POPULATION: Give the estimated population of <u>each species</u> on the refuge as of December 31.

(8) SEX RATION: Indicate the percentage of males and females of each species as determined from field observations or through removals.

Form NR-5 DISEASE 1616

Refuge Moosehorn National Wildlife Year 1945

Botulism 0

Period of outbreak _____

Period of heaviest losses _____

Losses:

	Actual Count	Estimated
(a) Waterfowl		
(b) Shorebirds		
(c) Other		

Number Hospitalized	No. Recovered	% Recovered
(a) Waterfowl		
(b) Shorebirds		
(c) Other		

Areas affected (location and approximate acreage) _____

Water conditions (average depth of water in sickness areas, reflooding of exposed flats, etc.

Condition of vegetation and invertebrate life _____

Remarks Healthy conditions generally.

Lead Poisoning or other Disease 0

Kind of disease _____

Species affected _____

Number Affected Species	Actual Count	Estimated

Number Recovered _____

Number lost _____

Source of infection _____

Water conditions _____

Food conditions _____

Remarks _____

Form NR-6 [illegible] FISH... 1617

Refuge Moosehorn National Wildlife Year 194_5

Species	Relative Abundance	Sport Fishing		Commercial Fishing		Restocking		Number removed for Restocking
		Man days Fishing	Number Taken	No. of Permits	Pounds Taken	Number Stocked	Area Stocked	
Small Mouth Bass	Very plentiful	65	?			7040		0
Grass Pickerel	Scarce	41	60	0	0	0		0
Brook Trout	Plentiful	375	6000	0	0	0		0
Land-locked Salmon	Scarce	66	3	0	0	0		0

REMARKS:

Form NR-7

PLANTINGS

(Marsh - Aquatic - Upland)

Refuge Moosehorn National Wildlife Year 1945

Species	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount & Nature of Propagules	Date of Planting	Survival	Cause of Loss	Remarks
Wild Rice (Zizania Aquatica)	Magurrewock Marsh, Cranberry L., Vose L.	6 Bu.	55 Acres	Seed	11/3/44			
Three Square (Sirpus Torreyl)	Magurrewock Marsh	100 Root Stock	All planted along border of Marsh.	Root stocks.	10/31/44			
Millet (E. Crugcalli)	Magurrewock Marsh	1 Bushel	Planted along border of Marsh.		10/3/44			
Smart Weed (Pennsylonicum)	Magurrewock Marsh	½ Bushel	Planted along N. shore of Marsh.		11/3/44			
Giant Bulrush (Sirpus Aqutus)	Magurrewock Marsh	10 lbs.	In a patch on border of Marsh					
Celery (Vallisnaria Spiralis)	East & West Magurrewock Stream	400 pods, each pod broken into 3 segments, placed inside clay balls and planted in first pool below lower end of rips, an excellent location.						

TOTAL ACREAGE PLANTED:

Marsh and aquatic 400 acres

Hedgerows, cover patches

Food strips, food patches

Forest plantings

1618

Form NR-8

CULTIVATED CROPS

Refuge Moosehorn National Wildlife Year 194 5

Permittee (If Farmed by Refuge, Indicate)	Permit No.	Unit or Location	Actual Acreage Cropped	Crops Grown	Avg. Yield Per Acre	No. Bu. Harvested	Acres Left Standing	Compensatory Services	Cash Receipts to Refuge
Lloyd Clark	10268	Formerly O, Lunn	½	Victory Garden					1.00
Oliver Mosher	12625	Barn Meadow Marsh		Cranberries		13			9.75
									Total

Summary of Crops Grown:

Crops	Acreage	Refuge Share Bu. Harvested	Acres left Standing

1619

Form NR-9

COLLECTIONS AND RECEIPTS OF PLANTING STOCK
(Seeds, rootstocks, trees, shrubs)

1620

Refuge Moosehorn National Wildlife Year 194 5

Species	Collections				Receipts		Total Amounts on Hand	Amount Surplus
	Amount	Date or Period or Collection	Method	Unit Cost	Amount	Source		
Wild Rice	6 Bu.	9/12/44	Hand picked by Refuge personnel.				0	0
Three Square	100 root stocks,	10/23/44	"					
Celery	400 pods	9/12/44						

Form NR-10

HAYING AND GRAZING

Refuge MOOSEHORN NATIONAL WILDLIFE Year 1945

Permittee	Permit No.	Unit or Location	Actual Acreage Utilized	Animal Use Months	Tons of Hay Harvested	Period of Use From - To	Rate	Total Income	Remarks
		Land formerly owned by				'44			
Foster Higgins	12611	J.H. Lunn	30		10	Oct. 3-Nov. 18	$2.00 Ton	$20.	
Wellington James	10278	D. Stewart	10		5	Aug. 26-Sep. 2,	$2.00 Ton	10	
Wellington Cookson	10269	E. Rumfeldt	5		10	Aug. 1 -Sept.1,	$2.00 Ton	10	
Chas. Barnard	8587	" " W. Cookson	~~10 A.~~ ~~5 hd.~~ 10 A.	6		Apr. 25-Oct. 1,	$0.50 Hd.	3.00	
Foster Higgins	8589	O. Lunn	30hd. 30 A.	4		May 26-Oct. 11	$0.50 Hd.	15.00	
Wellington James	8597	D. Stewart	20 A. 17 Hd.	4		June 13-Oct.15	$0.50 Hd.	8.50	
K. J. Thomas	8590	O. Lunn	10 A. 10 Hd.	4		May 26-Oct. 1,	$0.50 Hd.	5.00	

Totals:

Acreage grazed 75 Animal use months 18 Total income Grazing $31.50

Acreage cut for hay 45 Tons of hay cut 25 Total income Haying $40.00

1621

Form NR-11

TIMBER REMOVAL

Refuge MOOSEHORN NATIONAL WILDLIFE Year 194 5

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
Martin T. Hunter	8536	Hdqts. Rd.		Cords 2.4	$ 1.25	$3.00		Fire wood, g ray & W. Birch
Thos. Hoddin	8537	Lunn field		4.	"	5.00		" " "
Brad A. Colpitts	8539	Moosehorn V.		2.	"	2.50		" " "
Jas. McClaskey	8540	" "		4.	"	5.00		Larch & G. Birc
C.E. Flemming	8541	Mahar V.		5.	"	6.25		" " "
J. R. Crossman	10265	Meddybemps Rd.		2.	"	2.50		" " "
Fred Sampson	8583	Hdqts. Rd.		5.	"	6.25		Gray Birch
Glendon Ayer	8581	Charlotte Rd.		4.	"	5.00		" "
Dr. R.D. Hyde	8582	Meddybemps Lake		2.	"	2.50		" "
Geo. Gayton	8579	Hdqts. Rd.		5.	"	3.75		" "
Chas. Trimble	8580	" "		3.	"	3.75		" "
M. H. Mitchell	8585	Two Mile Meadow		2.	"	2.50		" "
W E. Smith	8586	Hdqts. Rd.		2.	"	2.50		" "
Lloyd Clark	8584	S. Truck Trail		10.00	"	12.50		" "
A. McLaughlin	8588	Moosehorn Val.		3.	"	3.75		" "
Myron L. Brown	12638	Meddybemps Rd.		3.	"	3.75		" "
Wellington James	8593	Moosehorn Val.		25	3.00	75.00		Balsam Fir
Oscar Brown	8592	James Pond		7.	1.25	8 75		G. Birch & W. Bir
Brad Colpitts,	12629	Moosehorn Val.		4.	1.25	5.00		" "
Paul Donovan	12636	" "	(Two Mile Meadow)		"	6.25		" "
Donald H. Lunn	12637	O. Lunn		20	16¢ bdl.	32.10	(Christmas trees)	
Earl McPhearson	12634	Hdqts. Rd.		4	1.25	25.00		Dying W. Birch
Wm. L. Babb	12624	Meddybemps Rd.		82	"	5.00		G Birch & Poplar
H. Day	8595	S. Truck Trail		4	2.00	164.00		Peeled Poplar
Wm. L. Babb	8598	Moosehorn Val.			1.25	5.00		G. Birch and Poplar

Total acreage cut over_____ Total income_____

No. of units removed B. F._____ Method of slash disposal_____
Cords_____
Ties_____
_____

1622

Form NR-11 TIMBER REMOVAL 11.

Refuge MOOSEHORN NATIONAL WILDLIFE REFUGE Year 194 43

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
				CORDS				
Frd.				Frd. 207		$396 60		
Arthur Doncaster	8599	Mahar Val.		9	$1.25	$ 11.25		Balsam, G.Birch
Chas. Hanson	8600	Moosehorn Val.		8	"	10.00		G.Birch, Poplar
L. Blagg	12623	Hdqts. Rd.		4	"	5.00		Gray Birch
Geo. Langille	12619	Meddybemps Rd.		5	"	6.25		" " Poplar
Chas. Blemming,	12615	Mahar Valley		5	"	6.25	Balsam Fir,	" " "
Chas. Babb	12617	Meddybemps Rd.		4	"	5.00	" "	" " "
Thomas Noddin	12614	Two Mile Meadow, Moosehorn Val.		4	"	5.00		" " "
Stanley Olson	12610	Hdqts. Rd.		10	"	12.50		" "
Wm. Doherty	12609	" "		4	"	5.00		" "
Howard Hayman	10276	" "		4	"	5.00		" "
W. E. Doherty	10275	" "		4	"	5.00		" "
E. T. Wheelock,	12602	Mahar Val.		247	"	30.94		Balsam Fir

Total acreage cut over ? Total income $503.79

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

Cords _____

Ties 818

Bdls. Christmas trees,

1622

Form NR-1

MIGRATORY BIRDS

Refuge Moosehorn (Edmunds Unit) Months of Sept to December 31, 1944

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	Deleted Number	Number	Date	No. Broods Obsvd.	Avg. Size	Esti-mated Total	Number Using Refuge
Woodcock	Breed here			Oct. 23 / Oct. 30	?	1	Nov. 9				175
Ring Neck Duck	None noticed on area.										
Canada Geese	None stay on area. From Sept. 30 to Nov. 21st geese were noticed in flight.										
Gr. Yellow Legs	3 birds were noticed October 16th.										3
Wilson's Snipe	None noticed on area.										0
Black Duck	Gradual flight from October 15th to December 1st. Peak concentration December 1st.										300
Golden Eye				Nov. 23		Winter on area					250
Merganser				" 23		"					200
Bittern	1 bird noticed October 7th										1
Wood Duck	None noticed.										0
Teal (Blue Wing)	5 birds noticed October 13th.										5
Teal (Green Wing)	7 birds noticed October 17, 21 and 22.										7
Loon	7 birds seen on area.										7
Brant				October 1 heavy flight passing over area. About 2000 birds.							

As no census plot is set up, the above estimate was arrived at from field observations.

REMARKS: (Pertinent information not specifically requested)

Earle H. Dudley

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-2 UPLAND GAME BIRDS 1613

Refuge Necedah (Edwards Unit). Months of Sept. to December 31, 194 4

(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 specifically requested. List introductions here.
Spruce Grouse	Spruce swamp and soft wood area. 2000 acres	150	2	11	?	None			17	
Ruffed Grouse	Upland hardwood, reverting agriculture land and bottom land hardwood. 3000 acres	38	5	43	?	None			80	

Estimate made from field observations.

Earle H. Dudley
Refuge Manager

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.

Form NR-3

BIG GAME

Refuge ~~Moosehorn (Edmund Unit).~~ Year 194_

(1) Species	(2) Density	(3) Young Produced	(4) Removals				(5) Losses			(6) Introductions		(7) Estimated Total Refuge Population as of Dec. 31	(8) Sex Ratio
Common Name	Cover types, total Acreage of Habitat	Number	Hunting	For Re-stocking	Sold	For Research	Predation	Disease	Winter Losses	Number	Source	Percentage	
White tail deer	Upland hardwood and alder. Reverting agriculture land, cedar swamp. 6300 acres	400										775 75 % does.	5
Moose	Flowage	A few signs noticed where moose had crossed area.											
Black bear	entire land area. 6300 acres.	2										7	

161

Earle H. Dudley,
Refuge Manager.

INSTRUCTIONS

Form NR-3 - BIG GAME

(1) SPECIES: Use correct common name; i.e., Mule deer, black-tailed deer, white-tailed deer. It is unnecessary to indicate sub-species such as northern or Louisiana white-tailed deer.

(2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.) exclusive of fenced herds. Detailed data may be omitted for species occuring 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 total number of young produced on refuge.

(4) REMOVALS: Indicate total number in each category removed during the year.

(5) LOSSES: On the basis of known records or reliable estimates indicate total losses in each category during the year.

(6) INTRODUCTIONS: Indicate the number and refuge or agency from which stock was secured.

(7) TOTAL REFUGE POPULATION: Give the estimated population of <u>each species</u> on the refuge as of December 31.

(8) SEX RATION: Indicate the percentage of males and females of each species as determined from field observations or through removals.

Form NR-5 DISEASE 1616

Refuge Moosehorn (Edmunds Unit) Year 1944

Botulism

Period of outbreak _____

Period of heaviest losses _____

Losses:

	Actual Count	Estimated
(a) Waterfowl		
(b) Shorebirds		
(c) Other		

Number Hospitalized	No. Recovered	% Recovered
(a) Waterfowl		
(b) Shorebirds		
(c) Other		

Areas affected (location and approximate acreage) _____

Water conditions (average depth of water in sickness areas, reflooding of exposed flats, etc.

No disease as far as known.

Condition of vegetation and invertebrate life _____

Remarks _____

Lead Poisoning or other Disease

Kind of disease _____

Species affected _____

Number Affected Species	Actual Count	Estimated

Number Recovered _____

Number lost _____

Source of infection _____

Water conditions _____

Food conditions _____

Remarks _____

Earle H. Dudley,
Refuge Manager.

Form NR-6 FISH 1617

Refuge Moosehorn (Edmunds Unit) Year 1944

Species	Relative Abundance	Sport Fishing		Commercial Fishing		Restocking		Number removed for Restocking
		Man days Fishing	Number Taken	No. of Permits	Pounds Taken	Number Stocked	Area Stocked	
White Perch	Plentiful	20	200	5	100	None.		
Brook Trout	Average	110	1000	22	300	None		
Atlantic Salmon	one salmon noticed in stream this period.							
Striped Bass	Striped Bass have been noticed at outlet Hobart Stream.							
Eels	Plentiful	Migrating from Hobart Lake to salt water.						

Earle H. Dudley,
Refuge Manager.

REMARKS:

Form NR-7

PLANTINGS
(Marsh - Aquatic - Upland)

Refuge Moosehorn (Edmunds Unit) Year 194 4

Species	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount & Nature of Propagules	Date of Planting	Survival	Cause of Loss	Remarks
	No plantings made.							

Earle H. Dudley,
Refuge Manager.

TOTAL ACREAGE PLANTED:

Marsh and aquatic_____
Hedgerows, cover patches_____
Food strips, food patches_____
Forest plantings_____

1618

Form NR-8

CULTIVATED CROPS

Refuge Moosehorn (Edmunds Unit) Year 1944

Permittee (If Farmed by Refuge, Indicate)	Permit No.	Unit or Location	Actual Acreage Cropped	Crops Grown	Avg. Yield Per Acre	No. Bu. Harvested	Acres Left Standing	Compensatory Services	Cash Receipts to Refuge
			No cultivated crops.						
							Earle H. Dudley, Refuge Manager.		
									Total

Summary of Crops Grown:	Crops	Acreage	Refuge Share Bu. Harvested	Acres left Standing

1619

Form NR-9

COLLECTIONS AND RECEIPTS OF PLANTING STOCK
(Seeds, rootstocks, trees, shrubs)

1620

Refuge Moosehorn (Edmunds Unit) Year 1944

Species	Collections				Receipts		Total Amounts on Hand	Amount Surplus
	Amount	Date or Period or Collection	Method	Unit Cost	Amount	Source		
		None.						

Earle H. Dudley,
Refuge Manager.

Form NR-10

HAYING AND GRAZING

Refuge Moosehorn (Edmunds Unit) Year 1944

Permittee	Permit No.	Unit or Location	Actual Acreage Utilized	Animal Use Months	Tons of Hay Harvested	Period of Use From - To	Rate	Total Income	Remarks
Bernard Cox	10270	Nat Smith Emery Cooley Wm. Cox	10		5	Aug. 1 to Aug. 22	$3.ton	15.00	
Bernard Cox	10271	Otis Leighton Gerald Cox Arthur Munson	75	20 head 3 months		August 1 to Nov.	1 .50 head	10.00	
Ralph Bell	12627	Fred Johnson Sr.	10		2	Nov. 3 to Dec. 15	$2.50	5.00	

Totals:

Acreage grazed 75 Animal use months 20 head three months Total income Grazing $ 10. ~~30~~

Acreage cut for hay 20 Tons of hay cut 7 Total income Haying $20.

Earle H. Dudley,
Refuge Manager.

1621

Form NR-11

TIMBER REMOVAL

Refuge Moosehorn (Headquarters Unit) Year 1944

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
Verner T. Brown	8542	Farm Otis Leighton	½	2 cord	1.25	2.50		Gr. Birch
				4 "	"	5.00		"
Walter Boomer	8549	Fred Johnson Sr.	½	50 bundles	.20	10.00		Fir
Harry Brown	12626	North Trail	50	Xmas. trees	bundle			
"	12632	"	10	14 " "	"	2.80		"
Alvah Reeves	12628	Fred Johnson Sr.	¼	2 cord wood	1.25	2.50		Mixed wood
Harold Olson	12639	"	1	6 " "	1.25	7.50		"

Very little stumpage was sold on the area the past year on account of high trucking rates and the long distance to haul wood to nearest community of any size.

Earle H. Dudley,
Refuge Manager.

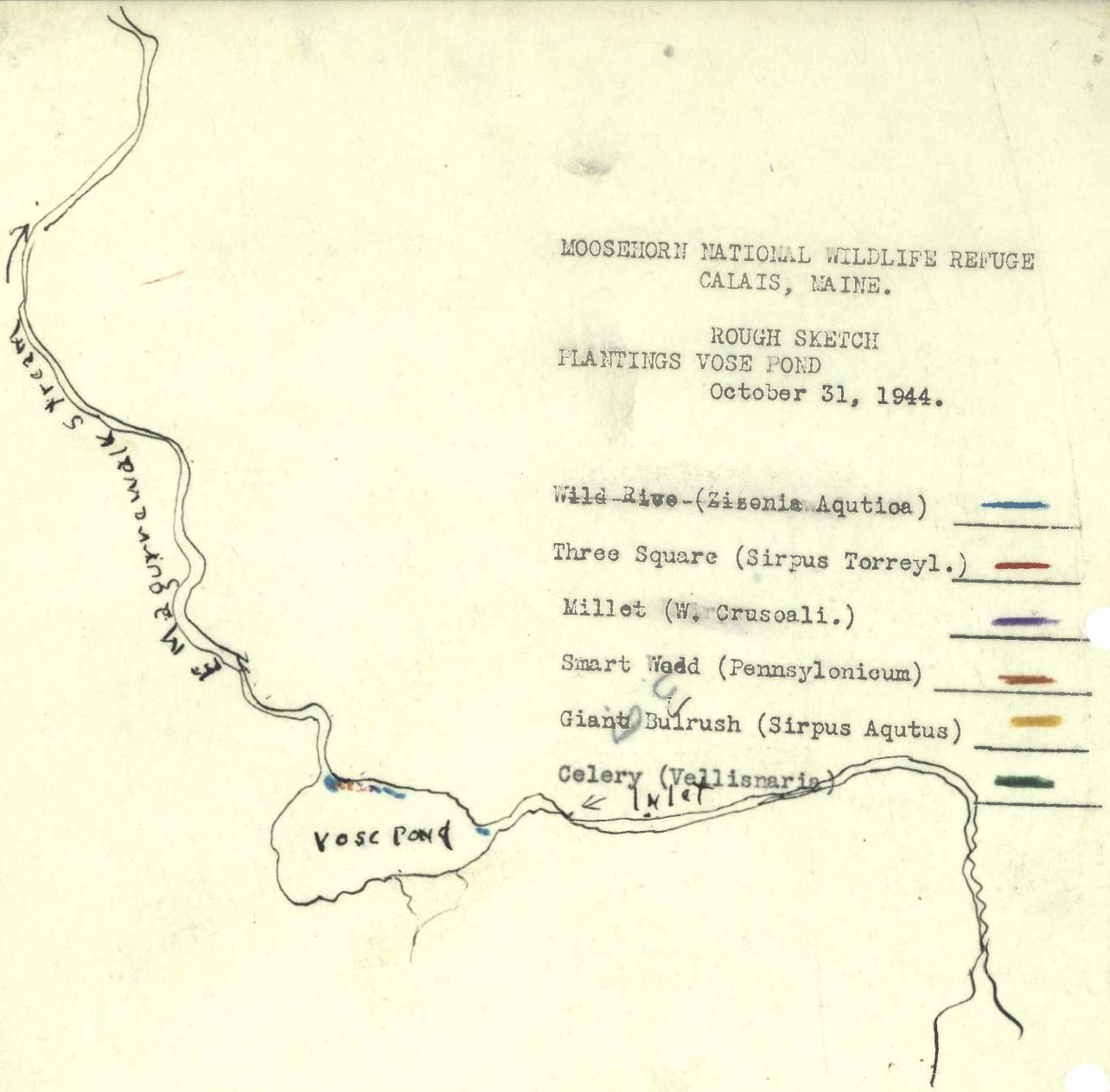
Total acreage cut over_____ Total income_____

No. of units removed B. F._____ Method of slash disposal_____
Cords_____
Ties_____
_____

1622

MOOSEHORN NATIONAL WILDLIFE REFUGE
CALAIS, MAINE.

ROUGH SKETCH
PLANTINGS VOSE POND
October 31, 1944.



Wild Rice (Zizenia Aqutica)

Three Square (Sirpus Torreyl.)

Millet (W. Crusoali.)

Smart Weed (Pennsylonicum)

Giant Bulrush (Sirpus Aqutus)

Celery (Vallisnaria)

MOOSEHORN NATIONAL WILDLIFE REFUGE
CALAIS, MAINE

ROUGH SKETCH PLANTINGS CRANBERRY LAKE
SECTION NOVEMBER 3, 1944.

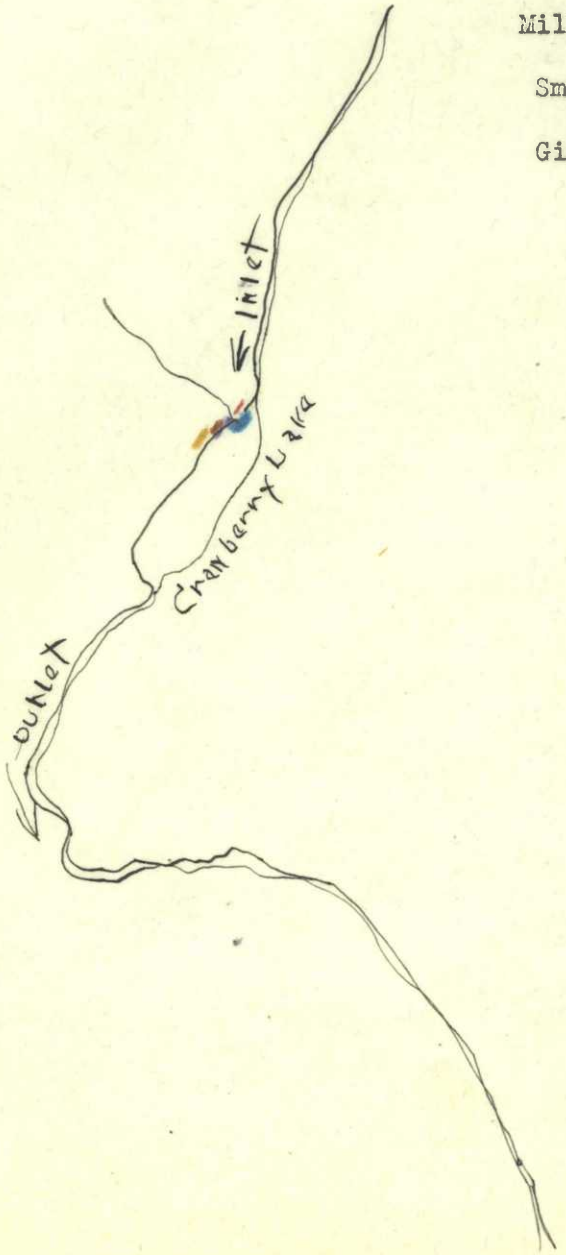
Wild Rice (Zizonia Aquitioa) _____

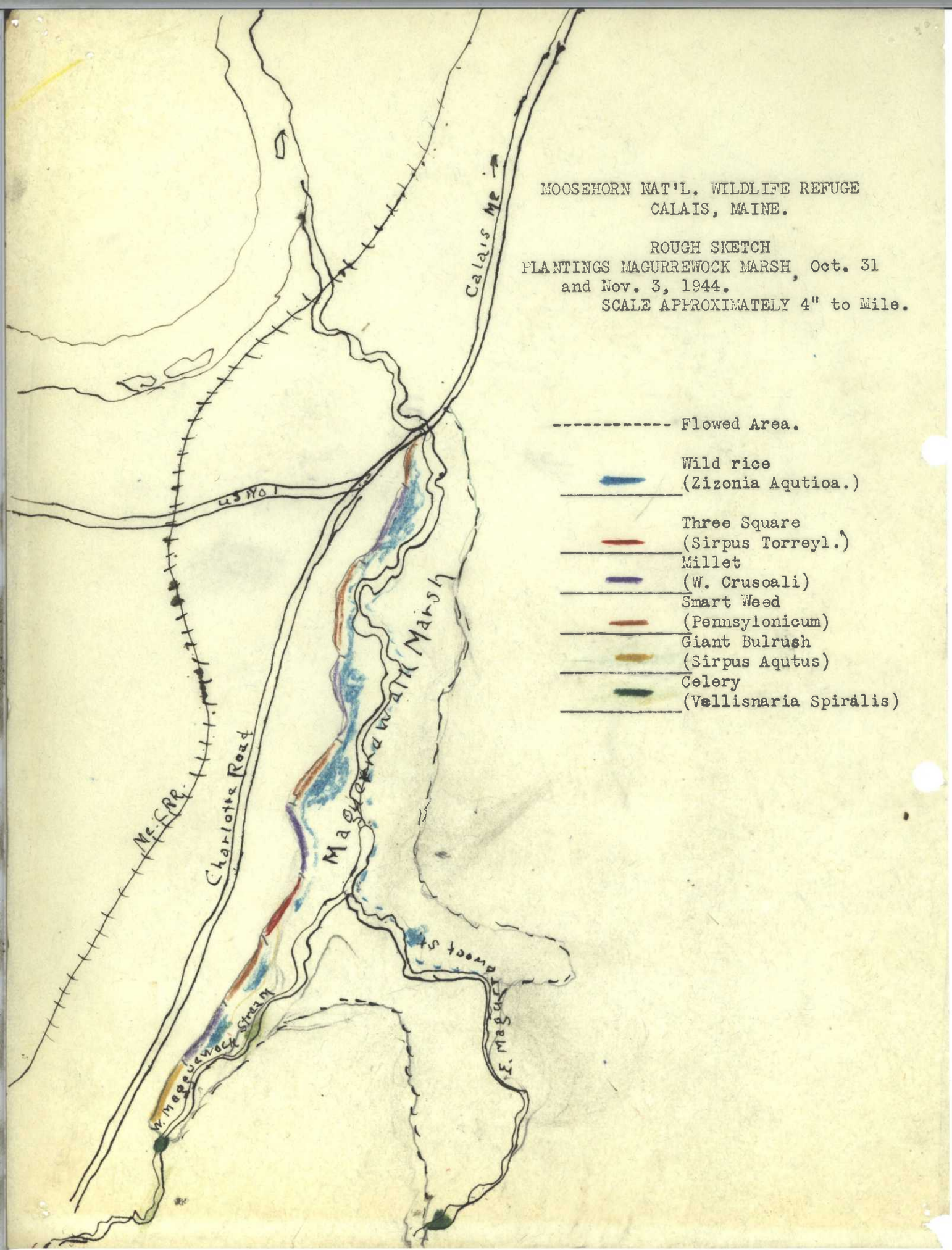
Three Square (Sirpus Torreyl) _____

Millet (W. Cruscali) _____

Smart Weed (Pennyslonicum) _____

Giant Bulrush (Sirpus Aqutus) _____





MOOSEHORN NAT'L. WILDLIFE REFUGE
CALAIS, MAINE.

ROUGH SKETCH
PLANTINGS MAGURREWOCK MARSH, Oct. 31
and Nov. 3, 1944.
SCALE APPROXIMATELY 4" to Mile.

---------- Flowed Area.

Wild rice
(Zizonia Aqutioa.)

Three Square
(Sirpus Torreyl.)

Millet
(W. Crusoali)

Smart Weed
(Pennsylonicum)

Giant Bulrush
(Sirpus Aqutus)

Celery
(Vellisnaria Spirális)