BRANCH OF WILDLIFE REFUGES NARRATIVE REPORTS

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REFUGE MONOMOY PERIOD May-August 1955

NARRATIVE REPORT

MONOMOY NATIONAL WILDLIFE REFUGE

May - August 1955

Stephen A. Gendall ..... Refuge Manager

WAE Employees

Peter Hartley ..... Laborer
Robert H. Olson ..... Laborer
Lee G. Farrenkopf Sr. ..... Laborer

DEPARTMENT OF THE INTERIOR, FISH AND WILDLIFE SERVICE

Monomoy National Wildlife Refuge

Chatham, Massachusetts

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NARRATIVE REPORT

MONOMOY NATIONAL WILDLIFE REFUGE

May - August 1955

I GENERAL

A. Weather Conditions

The following summary of rainfall and temperatures is obtained from the records of the Chatham Coast Guard Station, located one mile north of the refuge.

		Temperature	
	Rainfall	Maximum	Minimum
May	1.35	89	45
June	1.45	75	48
July	2.30	85	64
August	6.60	83	59

Rainfall for the first month of this period was below average. The average precipitation for the month of May during/for the last four years ('51'-'54') as shown in previous reports is 2.45 inches. Precipitation on Cape Cod varies greatly on areas which may be separated by only a mile or two. Unquestionably, Monomoy, which juts out into the Atlantic Ocean for approximatly 10 miles receives a heavier precipitation than most areas on the mainland. During the remaining portion of this period, the precipitation was above normal on the refuge.

The most notable precipitation occurred during the month of August because of hurricane 'Diane', a tropical storm, which, although loosing most of its hurricane winds, deposited extreme amounts of rainfall over southern New England, to set many new records. The precipitation recorded by the Chatham Coast Guard Station is questionable because all areas, both south and north of this station reported the rainfall as measuring 15 to 17 inches.

B. Water Conditions

Water levels remained high during this period. All of the constructed potholes held a minimum of 12 - 15 inches of water due primarily to the heavy precipitation. Because of the porosity of sand and soils, water does not accumulate to flood levels or stages as accurs on the mainland.

C. Fires

No fires occurred this period.

II WILDLIFE

A. Migratory Birds

1. Populations and Behavior

a. Waterfowl - The peak of the northward migration passed through the area during the previous period. At the start of this period, approximately 250 Black Duck were present. During daylight hours these Blacks would congregate off Inward Point and adjacent marshes which extend northward to Morris Is., on the west side of Monomoy; usually retreating to the refuge ponds and potholes during the late afternoon and evenings. This population remained fairly static throughout the period. The present hypothesis is that 90% of these are non-breeding birds.

During the period, four brood checks (4/27; 5/25; 6/22 and 7/8) failed to produce a single brood of Blacks, although several 'feigning females' were sighted. However, extremely dense stands of cattail presented excellent cover, and this fact may well be responsible for not having found any broods.

During the last week of July and after the Brood Count Report was submitted, the first brood of Blacks were sighted, consisting of the female and six weal feathered young.

At the close of the period, waterfowl numbers began an upward trend with the addition of a flight of 35 Blue-wing Teal.

Twenty to twenty-five Canada Geese were periodically sighted coming into the point ponds during the first half of the period. They would generally come onto the refuge at dusk and invaribly leave before sunrise the next morning.

Up to 50 Brant were regular refuge visitors during the month of May. For the most part they inhabited the area around Inward Point and the common flats which extend to the north.

Although the peak of the sea fowl migration passed during the prior period for northern areas, flocks of several hundred Scoters(American, Surf and White-wing), and Eiders were sighted several hundred yards off-shore, east of Monomoy throughout the month of May, at which time their number gradually dwindled and for the remainder of the period, only an occassional straggler was sighted.

At the close of the period the Scoters and Eiders had begun to show off Monomoy's east coast in the vicinity of the wrecked hull of the tanker Pendleton.

Other species noted in limited numbers at the close of the period are: Brant, 2; Canvas-back, 2; Pintail, 1, and Baldpate 30.

A single male Ruddy Duck, apparently an injured or crippled bird enjoyed the sanctuary of the refuge during the entire period.

b. Water and Marsh Birds - On May 10th, the first Terns of the season arrived on the refuge.

An occassional Common Loon was observed at various times during July and August, both at the station pond and offshore. Pied-billed grebes appeared at the end of the period in small groups numbering 5-10 birds. A flight of grebes passed through this area on or about Aug. 22, for one was found dead beneath a telephone line at the north end of the refuge with a broken neck, presumabley from flying into the wire at night or during the early morning fog. Several green herons were observed on salt marsh areas in June. Black-crowned night herons are regular visitors throughout the period. A peak of 35-40 herons was reached during the latter part of July. Great Blue Herons were present occassionally throughout the period on the marshes. During the last two weeks of August, as many as 30 of these birds were noted feeding in the marshes and around Station Pond.

c. Shorebirds, Gulls and Terns. - The birdlife of Monomoy is best represented by these species during this period. The following observations were made and represent peak populations.

On May 10th, the first Terns (common) of the season arrived on the refuge.

On August 8th, a Herring Gull's nest was discovered at the powder hole. This is the first evidence of a gull nesting on Monomoy since 1919. Life within the one egg discovered in the nest will never see the light of day, because, on the 16th of the month, high tides pushed by brisk winds destroyed the nest and egg.

The shorebird migration southward began early in July and reached its peak sometime during the latter part of the month or early August.

An estimated 500 Ruddy Turnstones in small flocks of 10-20, usually in association with sandpipers and sanderlings were observered.

An aggregate of 2000-2500 Ringed, Piping and Black-bellied Plover passed through the refuge.

Hudsonian Curlews were observed during July and August. The most seen at any one time during this period was 32.

Seven species of sandpipers numbering into the thousands passed through the refuge in flocks varying from a dozen or less to a thousand. These species were: Spotted; Solitary; Pectoral; White-rumped; Least; Red-backed and Semi-palm.

During July one to four Willet visited the powder hole and the common flats.

Herring gulls in flocks of one to two hundred birds were observered resting on the beach on the southeast portion of the Island. The total population is estimated to be approx. 2500.

Black-backed Gulls, at times numbering 250 to 300, usually in association with Herring Gulls congregate on the beach adjacent to the refuge's best waterfowl areas.

Present in lesser numbers are Laughing Gulls, and Ring-billed gulls. Peak numbers are: Laughing gulls 45-50; Ring-billed gulls 2 to 6.

Common Terns were present throughout the period. None were found nesting on Monomoy. Their nesting areas are located on Tern Island at North Chatham and on North beach, where many are banded each year by the Austin Ornithological Research Station.

Roseate terns (100-150); Arctic tern (24) and Black terns (1-10), the 1st of which was noted on 7/8/55, still in breeding plumage.

On 8/2/55 a Black Guillemot was sighted on the refuge. It is beleived to be the 3rd record for Monomoy and according to the records, the earliest sight record known to date. Undoubtly this was a non-breeding summer straggler.

2. Food and Cover

Food and cover appear to be adequate to handle the number of waterfowl present this period. Heavy growths of submerged aquatics (Sago), plantings of Millet, rye and smartweed should provide adequate food for the fall flights.

3. Botulism

None

4. Lead Poisoning and other Diseases

None evident.

B. Upland Game Birds

A single female pheasant was flushed in the vicinity of Bearse's light. This one bird is the only known record for the Island, and probabley wandered or strayed from the mainland, It was never sighted again.

C. Big Game Animals 1. Population and Behavior.

An estimated 10-12 White Tailed Deer, the only big game animal on the refuge. Although no deer were observered during the period, signs of their feeding and tracks were very much in evidence. At least one fawn was produced on the refuge. It was flushed by the dozer from a cattail marsh just east of the powder hole.

2. Food and Cover. - Both food and cover are adequate during the period to sustain the number present.

3. Disease - None evident.

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

1. Fur Animals

No observations of muskrats or their sign were made this period. Until their fall house building program starts their numbers will not be known. Predation by foxes and 3 known otters on the refuge is a factor which will have to be taken into consideration if the muskrat population is to increase. An increased muskrat population would be of benefit to waterfowl and an economic asset to the refuge.

Otter sign was noted throughout the period on both Station Ponds. On August 22nd three otters were observered frolicking on station pond. All dropping examined indicated they had been feeding on fish.

No sign or evidence of Raccoon or skunks were noted during this period.

2. Predators

The fox population on Monomoy is estimated tobe approximately 25-30 animals. A reduction of this fox population is necessary to further the purpose for which the refuge was established. Unquestionabley, many more birds would attempt nesting on the refuge if this predator could be eliminated. To date, shooting, trapping and gassing den sites have done little more than keep their numbers in check.

3. Rodents

Meadow and Deer Mice (Microtus and Peromyscus) are present on Monomoy but not in abnormal numbers.

E. Predaceous Birds including Crows.

The number of hawks, owls or crows present at any one time is low and pose no problem to the refuge. During the period, the following species were observered: Sharp-shinned Hawk; Broad-winged Hawk; Red-tailed Hawk; Swainson's Hawk; Marsh Hawk; Osprey; Duck Hawk; Pigeon Hawk; Sparrow Hawk and an immature Bald Eagle. The Eagle arrived on the refuge on July 19th in a very tired and sick condition. Its illness and lack of good food plus being harassed by Terns and other birds, pecking and strikhim with their bills, leaving it practically dead on the beach. This bird was successfully nursed back to health, banded and released in August. Favorable comment was received by radio, press and many interested individuals about town who learned of the Eagle's life and death struggle and its happy conclusion.

The 10-12 Crows which regularly inhabit the refuge pose no significant problem.

F. Fish

No fresh water fish on the refuge. (See Public Use - for Salt Water Fishing).

III Development & Maintenance

A. Physical Development

Very little development was accomplished this period, due primarily to lack of suitable equipment, changes in refuge personel, labor and transportation of supplies and materials via a single outboard motor driven skiff and a 4WD Jeep truck, Which should be replaced. Funds requested this F.Y.'s (56) budget to replace this vehicle were withdrawn

Approximately eighty percent of the manager's regular time was spent in the field assisting and working on/at various time consuming tasks which could and should be delagated to subordinates, thus allowing a manager needed time for advanced refuge management and development, in the interests of the Service

The major task of reclaiming 225-250 acres of marsh choked with cattail was begun, but soon bogged down because the only piece of equipment, an antiquated model D-6 Caterpillar, for which parts are next to impossible to obtain. This machine, a three cylinder diesel with an angle blade (much to wide for this machine), and cable lift (a home made affair of bygone years), is extremely differcult to handle and operate. This machine should be replaced for reasons of economy, conservation of man-power and safety.

During the period, with the aid of temporary WAE employees, the following positive accomplishments were achieved.

Eight hundred and fifty feet of sand fencing, to check beach and dune erosion was erected. Several repairs to sections damaged by storms were also made.

A three acre pond was created by dozing out a cattail marsh. The organic material dozed out will be utilized on the adjacent lands to establish a crop field/strip for waterfowl.

The refuge's 16' flat bottom skiff used for transportation of personel, materials and supplies, to and fro the refuge, was hauled out, washed, dried, scraped, sanded, painted and relaunched.

On the mainland side, a 12 ft., 6-8" dia. pole was erected by bottoming and rigged with a rope and pulley system for mooring the refuge boat. This system will facilitate and expedite each trip or use of the boat, not to mention all the lost/wasted energy of dragging the boat over varying distances of sand, pebbles, shells and mud to the water following each high tide, back to the water.

Approximately 80 man hours were consummed transporting supplies and materials to the refuge and base of operations, (i.e., sand fencing, cedar poles, seed, fertilizer, fuel, etc.),

A winch, purchased during the previous F.Y. was installed on the refuge jeep and put to good use many times hauling out vehicles, equipment, etc.

Two water control gates were installed on the refuge. (1) on Morris Is. marsh dike; (2) the other on the Lighthouse marsh dike.

Two telephone spur lines on the refuge have been surveyed by the Coast Guard. The refugemanager has successfully negociated their salvage, and will be used for posting signs, etc., on the refuge, resulting in a substancial saving.

All vehicles were periodically inspected and lubricated during the period to provide maximum efficiency and usage under trying conditions of operation in sand, muck and salt water.

Replaced the governor on the OC-3, which was causing the machine to perform unsatisfactorily.

A new fertilizer spreader with an attached seeder was received, purchased from funds allotted for this equipment under the current F.Y. budget. An entire day was spent with the mechanic assembling this piece of equipment after ferrying it across to the Is. and trucking it to the point where it will be stored and used.

IV Economic Use Of Refuge

A. Grazing - None.

B. Fur Harvest - None.

C. Recipts of Seed and Nursery Stock - None.

D. Other Uses

Thirteen S.U.P. are maintained for use of camps located on the refuge. Ten of these permits are for $2.50 per annum and three are for $75.00.

A S.U.P. was issued during the period to Eugene B. Doggett of Chatham, Mass. during the period, providing taxi service by beach buggy or approved motor vehicle to the public for the purpose of conducting bird-watching, sight-seeing, surf fishing and camping trips. A fee of $10.00 was charged for this privilage.

V Field Investigations or Applied Research

A. No banding was done this period.

VI - Public Relations

A. Public Use

Although Monomoy is a true island and many transportation differculties are present, this is the period of highest public use of the refuge. An estimated aggregate of 6000 man use days on the refuge by birders, campers and picnickers, surf fishermen, camp permittees and people interested in nature study, photography and painting.

Stripe Bass fishing was spotty during the period. The fall

migration which occurrs next period usually produce more fish.

Surf fishing for Bluefish, however has been excellent throughout the period, with 95% of the fish caught in the 9 - 10 lb. class. On good days, it is not uncommon to see 25-30 boats trolling in the vicinity of the refuge.

B. Refuge Visitors

David R. Gascoyne	Regional Director
Allan T. Studholme	Assitant Regional Director
Albert Swartz	Asst. Reg. Sup. - Fed. Aid.
Lee F. Brackett	Asst. Reg. Sup. - Enforcement
Merton Radway	Asst. Reg. Sup. - Refuges
Wellington B. White	Game Management Agent
Lawrence S. Smith	Refuge Manager - Montezuma
William A. Fitzpatrick	Mass. Div. Marine Fisheries
Francis Sargent	Director " "
Ludlow Griscom	Audubon Society
William Madden, Jr.	Mass. Conservation Officer

C. Refuge Participation

No formal participation this period.

During this period, the influx of vacationists and summer visitors increases tremendously. As a result many hours are spent answering qqeries and extending information relative to refuge, its activities and all phases of wildlife.

D. Violations

No violations of waterfowl or other wildlife are known to have occurred this period. Vandalism, however, of Coast Guard buildings, abandoned but in use by this station for storage of supplies and equipment, on Morris Island and at the point occurred during this period. No refuge equipment was taken to our knowledge, as was the case in 1953. Most smaller equipment and tools are kept in the boathouse as a precaution.

VII Other Items

On the 18th of May, a tender from the lightship 'Stonehorse' stationed just east of Monomoy Point, with three men aboard was swamped and sunk just off the 'point rip' at the tip of Monomoy. Although all the men had their life jackets on, strong tides with opposing winds claimed the life of one man. The othersmanaged to make shore. Refuge personel assisted the Coast Guard and other, in the search and pick-up of survivors and gear washed ashore

Photographs

This station does not possesa camera - no photos.

NR Forms

Attached

Respectfully submitted,

Stephen A Gendall

Stephen A Gendall
Refuge Manager

Approved William J Mueller 10/14/55
Regional Refuge Supervisor

Approved _____
Regional Director

3-1750
Form NR-1
(Rev. March 1953)

WATERFOWL

REFUGE Monomoy MONTHS OF May TO Aug, 1955

(1) Species	(2) Weeks of reporting period 1	2	3	4	5	6	7	8	9	10
Swans:										
Whistling										
Trumpeter										
Geese:										
Canada	25	25	12	6	00	12	10	10	8	6
Cackling										
Brant	50	50	35	30						
White-fronted										
Snow										
Blue										
Other										
Ducks:										
Mallard										
Black	75	75	75	75	100	125	250	250	200	150
Gadwall										
Baldpate										
Pintail										
Green-winged teal										
Blue-winged teal										
Cinnamon teal										
Shoveler										
Wood										
Redhead										
Ring-necked										
Canvasback										
Scaup										
Goldeneye										
Bufflehead										
Ruddy	1	1	1	1	1	1	1	1	1	1
Other										
Coot:										

3 -1750a
Cont. NR-1
(Rev. March 1953)

WATERFOWL
(Continuation Sheet)

REFUGE Monomoy MONTHS OF May TO Aug. , 19 55

(1) Species	(2) Weeks of reporting period 11	12	13	14	15	16	17	18	(3) Estimated waterfowl days use	(4) Production Broods seen	(4) Production Estimated total
Swans:											
Whistling											
Trumpeter											
Geese:											
Canada									300		
Cackling											
Brant									150		
White-fronted											
Snow											
Blue											
Other											
Ducks:											
Mallard											
Black	200	225	225	250	250	250	250	250	5000	1	10
Gadwall											
Baldpate	5	5	5	5	15	20	25	27	180		
Pintail											
Green-winged teal											
Blue-winged teal											
Cinnamon teal											
Shoveler											
Wood											
Redhead											
Ring-necked											
Canvasback											
Scaup											
Goldeneye											
Bufflehead											
Ruddy	1	1	1	1	1	1	1	1	120		
Other											
Coot:											

(over)

	(5) Total Days Use	(6) Peak Number	(7) Total Production
Swans			
Geese	300	25	0
Ducks	5000	250	7
Coots			

SUMMARY

Principal feeding areas: Station pond and marsh; point marsh Lighthouse marsh and salt meadows

Principal nesting areas: Station pond and lighthouse pond

Reported by: Stephen Gendall, Refuge Manager

INSTRUCTIONS (See Secs. 7531 through 7534, Wildlife Refuges Field Manual)

(1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.

(2) Weeks of Reporting Period: Estimated average refuge populations.

(3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.

(4) Production: Estimated number of young produced based on 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 should be omitted.

(5) Total Days Use: A summary of data recorded under (3).

(6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.

(7) Total Production: A summary of data recorded under (4).

Interior Duplicating Section, Washington D. C. 37944
1953

3-1751
Form NR-1A
(Aug. 1952)

MIGRATORY BIRDS
(Other than Waterfowl)

Refuge Monomoy Months of May to August 1955

(1) Species	(2) First Seen		(3) Peak Concentration		(4) Last Seen		(5) Production			(6) Total
Common Name	Number	Date	Number	Inclusive Dates	Number	Date	Number Colonies	Total # Nests	Total Young	Estimated Use
I. Water and Marsh Birds:										
Common Loon	1	5/11	2	8/2	2	8/2				100
Pied-billed grebe	3	5/23	10	8/2	9	8/2				150
Blk-crown night heron	10	5/11	40	8/2	5	8/2				3500
Gr. Blue Heron	2	5/23	30	8/2	30	8/2				300
II. Shorebirds, Gulls and Terns:										
Ringed Plover			500	7/8-8/2						
Piping Plover			1000	" "						
Black Bellied Plover			1000	" "						
Hudsonian Curlew			50	" "						
Sanderling			1500	" "						
Willet			4	" "						
Ruddy Turnstone			500	" "						
Herring Gulls			2500	5/1 - 8/30						
Blk-backed Gulls			300	" "						
Laughing Gulls			50	7/8-8/2						
Common Terns			3000	" "						

(over)

(1)	(2)		(3)		(4)	(5)		(6)
III. Doves and Pigeons:								
Mourning dove								
White-winged dove								
IV. Predaceous Birds:								
Golden eagle								
Duck hawk								
Horned owl								
Magpie								
Raven								
Crow			50	7/1-8/31				

Reported by.....

INSTRUCTIONS (See Sec. 7532, Wildlife Refuges Field Manual)

(1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiiformes)
II. Shorebirds, Gulls and Terns (Charadriiformes)
III. Doves and Pigeons (Columbiformes)
IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)

(2) First Seen: The first migration record for the species for the reporting period.

(3) Peak Numbers: Estimated number and inclusive dates when peak population of the species occurred.

(4) Last Seen: The last refuge record for the species during the season concerned.

(5) Production: Estimated number of young produced based on observations and actual counts.

(6) Total: Estimated species days use (average population X no. days present) of refuge during the reporting period.

Interior--Duplicating Section, Washington, D. C. 26014

3-1752
Form NR-2
(April 1946)

UPLAND GAME BIRDS

1613

Refuge MONOMOY Months of May to August, 1955

(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.
Not Applicable to This Refuge										

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.

3-1570
NR-8a

REFUGE GRAIN REPORT

Refuge Monomoy Months of May through August, 1955

(1) Variety*	(2) On Hand Beginning of Period	(3) Received During Period	(4) Total	(5) Grain Disposed of				(6) On Hand End of Period	(7) Proposed or Suitable Use*		
				Transferred	Seeded	Fed	Total		Seed	Feed	Surplus
Corn (shelled)	2		2			1	1	1		1	
Corn (eared)	15		15					15		15	
Winter Rye	6		6			1	1	5		5	
Millet	24		24	4	6		10	14	14		

(8) Indicate shipping or collection points Hyannis, Mass.

(9) Grain is stored at Monomoy Point - Equipment building.

(10) Remarks

*See instructions on back.

16—61482-1

NR-8a

REFUGE GRAIN REPORT

This report should cover all grain on hand, received, or disposed of, during the period covered by this narrative report.

Report all grain in bushels. For the purpose of this report the following approximate weights of grain shall be considered equivalent to a bushel: Corn (shelled)—55 lb., corn (ear)—70 lb., wheat—60 lb., barley—50 lb., rye—55 lb., oats—30 lb., soy beans—60 lb., millet—50 lb., cowpeas—60 lb., and mixed—50 lb. In computing volume of granaries, multiply the cubic contents (cu. ft.) by 0.8 bushels.

(1) List each type of grain separately and specifically, as flint corn, yellow dent corn, square deal hybrid corn, garnet wheat, red May wheat, durum wheat, spring wheat, proso millet, combine milo, new era cowpeas, mikado soy beans, etc. Mere listing as corn, wheat, and soybeans will not suffice, as specific details are necessary in considering transfer of seed supplies to other refuges. Include only domestic grains; aquatic and other seeds will be listed on NR–9.

(3) Report all grain received during period from all sources, such as transfer, share cropping, or harvest from food patches.

(4) A total of columns 2 and 3.

(6) Column 4 less column 5.

(7) This is a proposed break-down by varieties of grain listed in column 6. Indicate if grain is suitable for seeding new crops.

(8) Nearest railroad station for shipping and receiving.

(9) Where stored on refuge: "Headquarters granary," etc.

(10) Indicate here the source of grain shipped in, destination of grain transferred, data on condition of grain, unusual uses proposed.

16—61482-1 U. S. GOVERNMENT PRINTING OFFICE