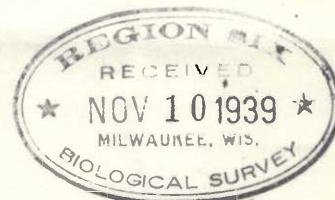


U. S. DEPARTMENT OF THE INTERIOR
Bureau of Biological Survey

Necedah Migratory Waterfowl Refuge
Necedah, Wisconsin
November 9, 1939



QUARTERLY REPORT

August 1, 1939 - November 1, 1939

I General Weather Conditions.

Abnormally dry weather conditions have prevailed throughout this period, and were a continuance of similar conditions preceding.

All pools excepting the two Ryneerson flowages dried up completely (flowage No. 19 containing perhaps two acres of water at this writing).

The Ryneerson flowages have held up exceptionally well considering the lack of rainfall, and the losses through seepage and evaporation. At the lowest levels Ryneerson No. 1 was about one foot below normal flowage level, and Ryneerson No. 2 close to .6 feet below normal flowage level.

In view of the fact that these flowages are so located as to receive the combined flow of all ditches at the extreme south end of the drainage basin, it is believed that they will continue to come through similar dry seasons without a serious loss of impounded water.

Month	Total Precipitation	Greatest in 24 hours	Temperature				Prevailing Wind Direction
			Maximum	Minimum	Light Frost	Killing Frost	
August	2.37	(Aug.21) 1.34	95°	43°	-	-	E & S
September	2.55	(Sept.4) 1.13	95°	25°	21	24, 26, 30	S
October	1.24	(Oct.10) .47	81°	15°		17	S
Total-							



W.W.

U. S. DEPARTMENT OF THE INTERIOR
Bureau of Biological Survey

Necedah Migratory Waterfowl Refuge
Necedah, Wisconsin
November 2, 1939



QUARTERLY REPORT

August 1, 1939 - November 1, 1939

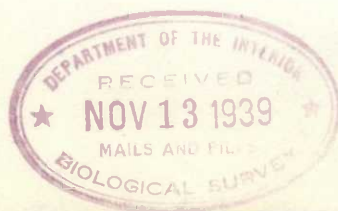
I General Weather Conditions.

Abnormally dry weather conditions have prevailed throughout this period, and were a continuance of similar conditions preceding. All pools excepting the two Hymenon floweres dried up completely (floweres No. 19 containing perhaps two acres of water at this writing).

The Hymenon floweres have held up exceptionally well considering the lack of rainfall, and the losses through seepage and evaporation. At the lowest level Hymenon No. 1 was about one foot below normal floweres level, and Hymenon No. 2 close to 6 feet below normal floweres level.

In view of the fact that these floweres are so located as to receive the combined flow of all ditches at the extreme south end of the drainage basin, it is believed that they will continue to come through similar dry seasons without a serious loss of impounded water.

Month	Total Precipitation	Greatest in 24 hours	Temperature			Killing Frost	Prevailing Wind Direction
			Maximum	Minimum	Average		
August	2.37	(Aug. 21) 1.34	95°	45°	-	-	E & S
September	2.58	(Sept. 4) 1.13	95°	25°	21	24, 28, 30	S
October	1.24	(Oct. 10) .47	81°	15°	-	17	S
Total							



Forest Fires.

In spite of extremely dry conditions and frequent high winds there have been no fires in the Refuge area during this period.

High relative humidity has also been the rule and this has likely helped to counteract the other more or less hazardous conditions.

II Wildlife

A. Waterfowl.

Fall migration.

Species	1938	1939	Species	1938	1939
✓ Mallard	1200 ✓	5500 ✓	✓ Golden-Eye	None	None
✓ Black Duck	3000 ✓	3000 ✓	Bufflehead	None	None
✓ Gadwall	30 ✓	200 ✓	Ruddy Duck	300	None
✓ Baldpate	None ✓	120 ✓	Snow Goose	35	None
✓ Green-Wing Teal	400 ✓	400 ✓	Blue Goose	30	None
✓ Blue-Wing Teal	600 ✓	1000 ✓	✓ Canada Goose	400	1200 ✓
✓ Shoveller	150 ✓	150 ✓	Whistling Swan	40	None
✓ Pintail	1000 ✓	800 ✓	✓ Coot	1000 ✓	2000 ✓
✓ Wood Duck	1000 ✓	3000 ✓	Hooded Merganser	None	None
Redhead	None	None	American Merganser	None	None
✓ Canvas-Back	10 ✓	None ✓			
✓ Scaup	1500 ✓	None ✓			
✓ Ring-Neck	50 ✓	None ✓			

Total- 1938 10,745

Total- 1939 17,370



Forest fires.

In spite of extremely dry conditions and frequent high winds there have been no fires in the Refuge area during this period. High relative humidity has also been the rule and this has likely helped to counteract the other more or less hazardous conditions.

II Wildlife

A. Waterfowl.

Fall migration.

Species	1938	1939	Species	1938	1939
Mallard	✓ 1500	✓ 2500	Golden-eye	None	None
Black Duck	✓ 3000	✓ 2000	Bufflehead	None	None
Gadwall	✓ 30	✓ 200	Ruddy Duck	200	None
Baldpate	None	✓ 150	Snow Goose	25	None
Green-wing Teal	✓ 400	✓ 400	Blue Goose	20	None
Blue-wing Teal	✓ 800	✓ 1000	Canada Goose	400	1200
Shoveller	✓ 150	✓ 150	Whistling Swan	40	None
Pintail	✓ 1000	✓ 800	Goos	1000	2000
Wood Duck	✓ 1000	✓ 2000	Hooded Merganser	None	None
Redhead	None	None	American Merganser	None	None
Canvas-back	✓ 10	None			
Scaup	✓ 1500	None			
Ring-neck	✓ 50	None			

Total- 1938 10,745
Total- 1939 17,370



As the foregoing table indicates, a smaller variety of species was observed during this year's fall migration, but there was a considerable increase in numbers of certain migrants, particularly mallard, wood duck, Canada goose, and coot.

Mallards and black ducks concentrated at the north end of Ryneerson flowages No. 1 and 2, and occasional flocks of blue-wing teal were also observed in this locality.

Large flocks of coot were present near the headquarters site (primary) and also in the east part of Ryneerson No. 1 flowage.

Canada geese were, on several occasions, seen within one-half mile of the captive goose pen, (further details under Item No. VI). Heavy migration was later than usual, because of the mild weather conditions through September and October.

Gadwall and baldpate migrants were observed during the last week in September, but were present in small flocks only.

Peak migration of mallard and black duck occurred during October 10-20. Peak migration of Canada geese occurred from October 20 to November 1. Coots appeared in large concentrations at various times, but largest flocks were observed from about October 1-15.

One noticeable change in preference for concentration areas occurred, when it was observed that the large flocks of mallards and black ducks which had frequented an extensive marsh area at the north end of Ryneerson No. 2, moved south about one mile and remained for about ten days before continuing their flight south.

It is believed this change was due to the fact that several severe frosts froze the shallower water areas, and the ducks necessarily moved to more open water where wave action prevented the ice from forming.

It was also observed that the Ryneerson flowages attracted many mallards from surrounding water areas after the hunting season commenced. On several occasions the writer noted large flocks of mallards flying from the general direction of nearby hunting areas, and watched them circle over the Ryneerson flowage and finally alight.

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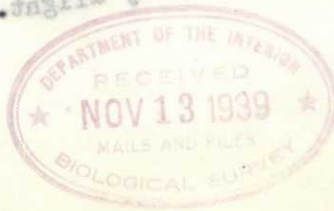
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There is no doubt that the scarcity of water in normally wet areas attracted many local raised ducks into the Refuge, after the hunting season opened.

B. Upland Game Birds.

Prairie chicken have not seemed to increase greatly over the last estimated population of 500. A general idea from hunter's bags bear out the idea that prairie chicken are outnumbered from five to one, to ten to one in this area.

Sharptail grouse had begun to "flock" just prior to the open season (October 1), but to all appearances the flocks have been broken up until groups of from three to six birds are the most usual occurrence.

Regular patrol throughout the Refuge area during the open season has indicated that the birds soon recognized the areas of sanctuary, as observations were much more frequent and larger flocks were seen in the inviolate areas than in the area opened to upland game hunting.

Pheasants apparently do not find the Refuge very attractive as observations during this period have been very scarce.

Several of these birds have frequented the headquarters site, but most observations are made, as to be expected, along the north and east boundaries adjacent to agricultural areas.

Bob-white quail also have been observed in but few instances, and in small coveys of from three to seven.

As mentioned in previous reports, it is quite definite that the Refuge is close to the north extremity of good quail range, and general environment.

Ruffed grouse occur in about equal numbers as do the prairie chicken, although their preferred ranges are exactly the opposite. Due to the fact that the north and south portions of the Refuge contain essentials in food and cover it is believed that a good breeding stock remains, as these areas were not opened to hunting.

There is no doubt that the scarcity of water in normally wet areas attracted many local raised ducks into the Refuge, after the hunting season opened.

B. Upland Game Birds.

Prairie chicken have not seemed to increase greatly over the last estimated population of 500. A general idea from hunter's bags bear out the idea that prairie chicken are outnumbered from five to one, to ten to one in this area.

Sharp-shinned grouse had begun to "flock" just prior to the open season (October 1), but to all appearances the flocks have been broken up until groups of from three to six birds are the most usual occurrence.

Regular patrol throughout the Refuge area during the open season has indicated that the birds soon recognized the areas of sanctuary, as observations were much more frequent and larger flocks were seen in the inviolate areas than in the area opened to upland game hunting.

Phalaropes apparently do not find the Refuge very attractive as observations during this period have been very scarce.

Several of these birds have frequented the headquarters site, but most observations are made, as to be expected, along the north and east boundaries adjacent to agricultural areas.

Bob-white quail also have been observed in but few instances, and in small coveys of from three to seven.

As mentioned in previous reports, it is quite definite that the Refuge is close to the north extremity of food quail range, and general environment.

Bull grouse occur in about equal numbers as do the prairie chicken, although their preferred ranges are exactly the opposite. Due to the fact that the north and south portions of the Refuge contain essentials in food and cover it is believed that a good breeding stock remains, as these areas were not opened to hunting.



C. Predator and Rodent Control.

Month	Species		Remarks
	Skunk ✓	Turtles ✓	
August	1	3	
September	1	2	
October	None	0	All shot by Patrolman Carter.
TOTAL	2	5	

D. Fur Take by Refuge Personnel.

None.

E. Fur Take by Other Trappers.

None.

F. Other Animals.

The following tabulations contain information as reported in the annual report, but it is believed the status of the species mentioned is the same as during that period.



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The following tabulations contain information as reported in the annual report, but it is believed the status of the species mentioned is the same as during that period.



Species	Present Population	Comparison with Past Years
Sandhill Crane	5 pair	Transient through area-nesting should occur from protection
Snowshoe Rabbit	Very rare	No signs of change in population.
Cotton-tail Rabbit	Rare	Increasing slowly.
Jack Rabbit	Very rare	No sign of increase.
Red Squirrel	Abundant	No noticeable change.
Grey Squirrel	Abundant	No noticeable change.
Fox Squirrel	Rare to Common	No noticeable change.
Coyote	8-15	Slight increase- natural increment of young.
Timber Wolf	None	No signs observed.
Black Bear	None	No signs observed.
Red Fox	6-14	Slight increase- natural increment of young.
Grey Fox	2-8	Slight increase- natural increment of young.
Beaver	130	Increasing- new dams, new cuttings.
Mink	10-20	Slight increase- natural increment of young.
Skunk	2500	Increasing- new houses, increasing "signs."
Weasel	Common	Very likely increasing.
Skunk	Abundant	Increasing greatly- need control.
Otter	Rare 1-6	Too rare to be considered.
Fisher	Rare, if any	Too rare to be considered.
Crow	Abundant	Increasing- will need control.
Hawks	Common	No signs of change in population.
Owls	Common	No signs of change in population- may need control.
Snapping Turtle	Abundant	Increasing greatly- control needed.
Snakes	Common	No signs of change in population.
Badger	Rare	No signs of change in population.
Raccoon	Rare	No signs of change in population.

G. Bird Banding Operations.

Species	Banded	Repeats
✓ Blue-Winged Teal-----	13	
✓ Wood Duck-----	82	----- 18
✓ Pintail-----	1	
✓ Mallard-----	22	----- 20
✓ Black Duck -----	3	----- 1
Total-----	121	----- 39



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Black Bear	None	No signs observed.
Red Fox	8-15	Slight increase-natural increment of young.
Grey Fox	2-3	Slight increase-natural increment of young.
Beaver	150	Increasing-new dams, new cuttings.
Wink	10-20	Slight increase-natural increment of young.
Whist	2500	Increasing-new houses, increasing "stems."
Weasel	Common	Very likely increasing.
Skunk	Abundant	Increasing greatly-need control.
Otter	Rare 1-8	Too rare to be considered.
Fisher	Rare, if any	Too rare to be considered.
Grouse	Abundant	Increasing-will need control.
Hawks	Common	No signs of change in population.
Owls	Common	No signs of change in population-may need control.
Snapping Turtle	Abundant	Increasing greatly-control needed.
Snakes	Common	No signs of change in population.
Badger	Rare	No signs of change in population.
Raccoon	Rare	No signs of change in population.

G. Bird Banding Operations.

Species	Banded	Reverts
Blue-Winged Teal	12	
Wood Duck	88	18
Pintail	1	
Mallard	22	20
Black Duck	2	1
Total	121	39



III Refuge Development and Maintenance.

A. Physical Development.

Buildings. During this period the equipment shed at the secondary site was entirely completed with the exception of a ceiling in the shop, work bench and cabinets. Further improvements are planned but the building is completed. As per original plan, Soil Conservation Service will complete ceiling, work bench and cabinets.

The Service building at the primary site is completed except laying linoleum on the office floor, construction of cabinets in office and shop, and a small amount of interior finish. Soil Conservation Service will complete this work upon receipt of certain materials.

The water system is very near completion, and as this job was contracted it will be finished and ready for use as soon as power is available.

The dwelling is now completed with the exception of shellacing and varnishing, and construction of cabinets in the kitchen and bathroom. This work is now in the process of being completed by the C. C. C.

Boundary Survey. Completed in August.

Posting of Boundaries. Completed with exception of several tracts on which boundaries are to be changed according to Conrardy's survey. Approximately thirty posts have not as yet been painted.

Fencing. Fencing is now being undertaken by the C.C.C. and will continue until the present supply of cedar posts have been exhausted (about 3,000).

At present, only the top strand of barbed wire is being placed in order that the partially completed fence will serve as a definite boundary marker.

This was thought advisable in as much as a limited supply of wire is on hand and it is desirable to mark as much boundary as possible, prior to the opening of the deer season.



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This was thought advisable in as much as a limited supply of wire is on hand and it is desirable to mark as much boundary as possible, prior to the opening of the deer season.



Gates. Temporary gates have been placed at all roads not claimed by the townships, or on interior roads at certain strategic locations. These gates were built of scrap and salvage lumber, obtained from Soil Conservation Service and the Miller buildings.

Weir Dams. Eight weir dams have been constructed for the purpose of determining the volume of waterflow coming into the Ryneerson flowages, and the volume of waterflow coming out of the Ryneerson flowages. These dams were built of oak sheeting, and tongue and groove sheeting and were built as temporary structures only. With labor available, it is believed the structures can be put in sound enough shape to withstand considerable volumes of water.

B. Plantings.

1. Aquatic and Marsh Plants.

Species	Amount (lbs.)	Planted Acres	Date Planted	Location
Wild Rice ✓	400	8 Ac.	11/39	Ryneerson Flowage No. 1 Ryneerson Flowage No. 2
Wild Celery ✓	100	2 Ac.	10/39	Ryneerson Flowage No. 2
Total-	500	10 Ac.		

Every attempt was made to select sites that appeared to offer optimum growing conditions for the species planted.

All rice was raked into the bottom by rakes, and due to a fortunate coating of ice on the water for several days following the planting, it is certain that very little seed was lost to feeding ducks.

2. Cultivated Crops.*

3. Trees and Shrubs.*

* Although it was planned to initiate planting along both of these lines, during this period, neither C.C.C. or W.P.A. labor has been available for work of this nature, at the proper time.

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C. Collection.

None

D. Distribution of Seed and Nursery Stock.

None.

IV Public Relations.

A. Recreational Uses.

1. All camping was done by chicken hunters (see "hunting").

2. Fishing.

The following estimates are based on checking of fishermen on Refuge areas and general average of "takes".

7 inch

No. of Fishermen	Fish Taken			
	Bullhead✓	Pickrel✓	N. Pike✓	Suckers✓
2500 man-hours	150	250	250	50

As stated in the previous quarterly report, fishing has been limited to the immediate dam sites of Ryneerson flowages No. 1 and No. 2, and to the two main ditches entering these two flowages.

As could be expected, most fishing has been done on Sundays, Saturday afternoons, and holidays.

use Refuge
3. Hunting.

Hunting take on 16,000 acre open area within Refuge.

Species	No.
✓ Sharptail Grouse-----	654
✓ Ruffed Grouse-----	87
✓ Prairie Chicken-----	87
Total-----	828

C. Collection.

None

D. Distribution of Seed and Nursery Stock.

None.

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1. All camping was done by chicken hunters (see "hunting").

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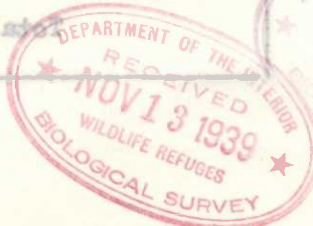
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3. Hunting.

Hunting take on 16,000 acre open area within Refuge.

No.	Species
824	Sharp-shinned Hawk
87	Ruffed Grouse
87	Prairie Chicken
828	Starling



Above estimates are based on a representative area of 2,020 acres in which a total of eleven (11) hunters had the following "bag":

Prairie Chicken----- 2
Sharptail Grouse----- 15
Ruffed Grouse----- 2

If the above figures can be considered indicative, it appears that the hunting take did not result in depleting the capital stock. As previously mentioned, it is believed that an increased movement of birds took place into the protected areas, as the season continued.

It is estimated that 480 man-days were expended in the area of 16,000 acres during the open season on upland game.

4. Visitors.

Classification	No.	Official Status	Length of Stay (days)
C.C.C. Officials	3	Washington Milwaukee, Wis.	4.0
U.S.B.S. Officials	8	Washington, Denver, Colo., Seney Mich., Milwaukee, Oshkosh, Wis.	18.0
S. C. C. Officials	4	Black River Falls, Milwaukee, Wis.	2.0
Conservationists	6	Milwaukee, Madison, Wis.	2.0
Sightseers	200	Necedah, Juneau Co. Monroe Co., Jackson Co.	20.0
Total-	221		46.0

B. Refuge Violations.

Pursuant to instructions from the Regional Director, efforts were made to prevent violations as much as to apprehend violators following offenses.

It is believed that very little illegal shooting of waterfowl took place during this period, although several cases were quite definite.

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Three individuals were very near apprehended on the opening day of duck season, but the Refuge personnel misjudged the depth of one ditch and the violators escaped.

A Mr. Rannenberg of Madison, Wisconsin, admitted illegal shooting of one duck in the closed area. Affidavits on this violation are being forwarded in the near future.

Patrolman Burns T. Carter apprehended a hunter shooting chicken in the closed area, but a deep ditch again prevented capture.

At least seventy individuals were warned on the opening day of "chicken" season as to boundaries of closed areas.

Twelve individuals who had just commenced to hunt chicken in the closed area, were warned of their offense and asked to cease hunting. No kills had been made and, as Mr. Janzen instructed, initial cases of trespass were corrected but offenders were not arrested in as much as area boundaries were of too recent establishment to hold trespassers 100% accountable.

V Economic Uses of Refuge

A. Grazing.

As stated in the previous quarterly report, no permits have been issued for controlled grazing.

One adjacent land-owner has fenced in a forty acre tract of Refuge land for pasturing his cattle. No charge has been made for this privilege, but regular procedure will be followed beginning in the spring of 1940, and a monthly rate will be charged according to the number of head, and area pastured.

One other farmer has pastured eighty acres of Refuge land under the same conditions and this case will be handled in a similar manner.

A management plan relating to suggested grazing policies will be forwarded in the near future.

B. Haying

Approximately 150 acres of hay marsh land was cut by permittees and hay removed to private premises for livestock use.

Eleven permittees removed 142.4 tons of hay at a unit price of \$.50 per ton, thus providing a revenue of \$71.20.

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A. Grazing.

As stated in the previous quarterly report, no permits have been issued for controlled grazing.

One adjacent land-owner has fenced in a forty acre tract of Refuge land for pasturing his cattle. No charge has been made for this privilege, but regular procedure will be followed beginning in the spring of 1940, and a monthly rate will be charged according to the number of head, and area pastured.

One other farmer has pastured eighty acres of Refuge land under the same conditions and this case will be handled in a similar manner.

A management plan relating to suggested grazing policies will be forwarded in the near future.

B. Haying

Approximately 150 acres of hay marsh land was cut by permit-tees and hay removed to private premises for livestock use.

Approximately 142.4 tons of hay at a unit price of \$1.50 per ton, thus providing a revenue of \$21.20.



After checking several areas as to acreage and tonnage, it has been decided more expedient to dispose of the hay on a tonnage basis rather than an acreage basis, and it is suggested this policy be followed in this area. This fact is true due to the very irregular areas of marsh and their scattered locations.

C. Timber Removal. None.

D. Share Cropping. None, but a limited amount planned for this coming spring.

VI Other Items

1. The proposed W.P.A. project is due to get under way in the next week or two, and labor will be expended chiefly on salvage work and pool clearing for the ensuing period.

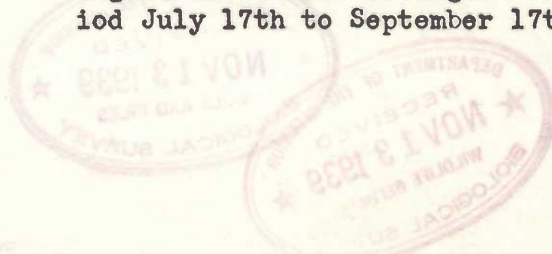
2. Public reaction to the opening of an upland game hunting area within Refuge boundaries was very favorable, and it appears that general sentiment will soon be in favor of keeping the entire area closed at all times.

3. Goose Flock. As mentioned previously, the captive geese have without doubt, been instrumental in attracting numerous flocks of wild geese to the vicinity of the Refuge headquarters. Flocks varied in size from three or four, to eighty, some remaining for periods of from one to three days.

Small groups of from three to four wild geese actually approached to the fence of the captive goose pen. Although seemingly impossible, Patrolman Carter on one occasion, herded three wild geese into the pen. The only explanation possible is that the three geese had in all probability been raised in some other sanctuary and were used to the presence of people.

On October 20th, 8:30 A.M., a small goose was seen directly next to the fence, and upon observation with field glasses, it was identified as a Hutchin's. About 4:30 P.M. the goose was inside the enclosure, and by maneuvering it into a corner, the goose was captured, wing-clipped, and is now a member of the flock. To all appearances he has taken readily to the mixed grain diet.

4. Following is included a check list of various species of plant and animal life, as compiled by Mr. George B. Fell, who was assigned as student biologist on the Necedah Refuge, during the period July 17th to September 17th, 1939:



After checking several areas as to acreage and tonnage, it has been decided more expedient to dispose of the hay on a tonnage basis rather than an acreage basis, and it is suggested this policy be followed in this area. This fact is true due to the very irregular areas of marsh and their scattered locations.

- C. Timber Removal. None.
- D. Share Cropping. None, but a limited amount planned for this coming spring.

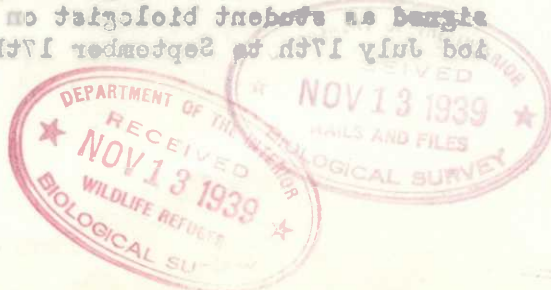
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Plants (Species not collected):

Algae

Spirogyra
Hydrodictyon (Waternet)
Other species - green and blue-green

Mushrooms

Star mushroom
Puffball
"Toadstools"

Liverwort

1 species - Sec. 1-20-2

Mosses

Polytricum (?) - abundant
Sphagnum - Sec. 9-19-3

Equisetum - (Horsetail)

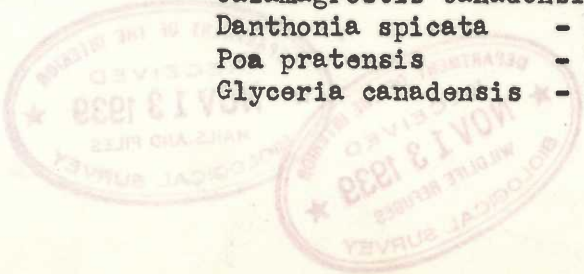
Higher plants

Potamogeton pusillus - (Identification
should be confirmed)
Pickerel Weed
Iris
Rhus spp.
Rubus spp.

Waterfowl Food Plants - See next page

Common Grasses:

Andropogon scoparius - Little Bluestem
Andropogon furcatus - Big Bluestem
Panicum spp. - Panic Grass
Echinochloa crusgalli - Wild Millet
Setaria (2 sp.) - Pigeon Grass
Cenchrus carolinianus - Sandbur
Zizania aquatica angustifolia - Wild Rice
Leersia oryzoides - Rice Cut-grass
Aristida sp. - Triple-awned Grass
Agrostis alba - Red Top
Agrostis hyemalis - Hair Grass
Calamagrostis canadensis - Blue-joint Grass
Danthonia spicata - Wild Oat Grass
Poa pratensis - Blue Grass
Glyceria canadensis - Manna Grass



Plants (Species not collected):

Algae
Spirogyra
Hydrodictyon - (Waterwheel)
Other species - green and blue-green

Mushrooms
Star mushroom
Puffball
"Toadstool"

Liverwort
1 species - Sec. 1-20-2

Mosses
Polytrichum (?) - abundant
Sphagnum - Sec. 3-12-2

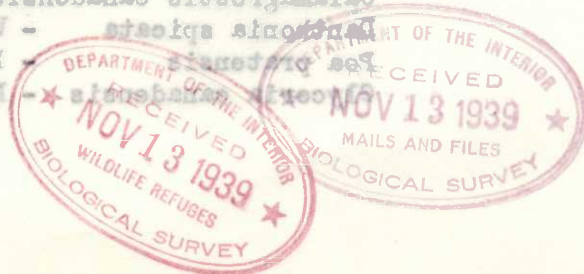
Rhizetum - (Horsetail)

Higher plants
Potamogeton pectinatus - (Identification should be confirmed)
Pickering Wood
Iris
Rhus spp.
Rhus spp.

Waterfowl Food Plants - See next page

Common Grasses:

Andropogon scoparius - Little Bluestem
Andropogon furcatus - Big Bluestem
Panicum spp. - Panic Grass
Echinochloa oryzoides - Wild Millet
Setaria (2 sp.) - Pigeon Grass
Cenchrus ciliaris - Sandbar
Echinochloa crusgalli - Wild Rice
Lactuca oryzoides - Rice Cut-grass
Aristida sp. - Triple-awned Grass
Agrostis alba - Red Top
Agrostis hyemalis - Hair Grass
Calamagrostis canadensis - Blue-joint Grass
Dactylis glomerata - Wild Oat Grass
Blue Grass
Manna Grass



Common Sedges:

Eleocharis obtusa	- Spike Rush
Scirpus cyperinus	- Wool Grass
Carex scoparia	- Sedge
Carex pennsylvanica	- Sedge
Carex sp.	- Wire Grass

Waterfowl Food Plants:

<u>Excellent</u>	<u>Good</u>	<u>Fair to Poor</u>	<u>Undesirable</u>
Potamogeton pectinatus-(Sago) Rare	Potamogeton foliosus (Pondweed) Abundant	Sparganium eurycarpum-(Burreed) Scarce	Typha latifolia-(Cattail) Abundant
Najas flexilis-(Shy P.) Scarce	P. pusillus-(Pondweed) Abundant	Potamogeton zosteriformis-(Flatstem P.)*Scarce	Scirpus cyperinus-(Woolgrass) Abundant
Vallisneria spiralis-(Wild celery) Common	P. epihydrus-(Ribbonleaf P.) Common	P. capillaceus-(Pondweed) Abundant (in #1)	Utricularia vulgaris (Bladderwort) Abundant
Zizania aquatica angustifolia-(W. Rice) Abundant	P. natans-(Floatingleaf P.) Scarce	Sagittaria latifolia (Arrowhead) Common	
Echinochloa crusgalli-(W. Millet) Common	Scirpus americanus-(3-square Bulrush) Rare	Anacharis canadensis (Elodea) Scarce	
E. crusgalli frument-a-(Jap. Millet) Rare	Spirodela polyrhiza-(Big Duckweed) Scarce	A. occidentalis (Elodea) Rare	
E. walteri-(W. Millet) Rare	Lemna trisulca-(Star Duckweed) Rare	Spartina pectinata (Cordgrass) Rare	
Polygonum lapathifolium-(Nodding S.) Common	Lemna minor-(Duckweed) Abundant	Leersia orizoides-(Rice Cutgrass) Common	
P. amphibium-(Water S.) Rare	Polygonum hydropiper (Waterpepper) Scarce	Panicum spp. (Panic Grass) Common	
P. muhlenbergii-(Water S.) Common	P. sagittatum-(Tearthumb) Scarce	Setaria lutescens-and sp.-(Pigeon Grass) Common	

Waterbury Food Plants:

6007

Excellent

Potamogeton
pectinatus--(Sago)
Rare

Source
(any P.)
Negative Flexilis-

Common
also (Wild celery)
Valeriana Spitz

Stenotaphrum secundatum (L.) Poiteau
Rice Abundant

Common
Gall - (W. Miller)
Baltimore 1875

Baro
R- (Jap. Millet)
E. Orusallii

E. Miller
Rare
E. Miller
- (W.)

Common
Folium-(Hobding S.)
Polygonum jagathii-
Lama minor-
(Druckweid)
Abundant

Rate
S.
P. sample of am - (Water)

P. mull. and
(Water 2.
Common

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BIOLOGICAL SURVEY

Spiky Rush
Wool Grass
Sedge
Sedge
Wire Grass

Fair to poor

Sparganthis eurycarpus (Burrood)
Scorpa

(Plaster P.) (Science
zoosteriformis -
Potamogeton

P. capillarens -
(Pondweed)
Abundant in #1

Sagittaria latifolia
(Arrowhead)
Common

Anschultz (Elodie)
Sexton

A. occidentalis
(Fishes)
Rato

Spartina pectinata
(Corymbosa)
Rare

Leptaria orizoides
(Rice Cutworm)
Common

Common
(Public Area)
Peninsula 899.

RECEIVED
13 1836
DEPARTMENT OF THE
AGRICULTURE
BUREAU OF ENTOMOLOGY
WASHINGTON, D. C.

Excellent

P. pennsylvanicum-
(Largeseed S.)
Common

P. punctatum-(*P. acre*)
(Dotted S.)
Common

Good

Brasenia schreberi-
(Water Shield)

Fair to Poor

Scirpus validus
(Softstem Bulrush)
Rare

Carex (2 species)
(Wiregrass and Cutgrass)
Common

Pontederia cordata
(Pickeral Weed)
Rare

Ceratophyllum demersum
(Coontail)
Rare

Castalia odorata-
(White Waterlily)
Scarce

Bidens spp.
(Beggartick)
Common

Common Woody Plants:

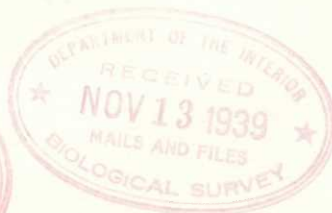
<i>Pinus banksiana</i>	-	Jack Pine
<i>Pinus strobus</i>	-	White Pine
<i>Pinus resinosa</i>	-	Red Pine
<i>Salix</i> spp.	-	Willow
<i>Populus tremuloides</i>	-	Quaking Aspen
<i>Populus grandidentata</i>	-	Large-toothed Aspen
<i>Betula pumila</i>	-	Swamp Birch
<i>Betula</i> sp.	-	White Birch
<i>Alnus incana</i>	-	Speckled Alder
<i>Quercus alba</i>	-	White Oak
<i>Quercus</i> sp.	-	Black Oak
<i>Spiraea salicifolia</i>	-	Meadow-sweet
<i>Aronia melanocarpa</i>	-	Chokeberry
<i>Rubus</i> spp.	-	Blackberry, Raspberry, Dewberry



Excellent	Good	Fair to Poor
<i>P. pennsylvanicum</i> - (Large seed S.) Common	<i>Brassica schreberi</i> - (Water Shield)	<i>Sorbus validus</i> (Softstem Bulrush) Rare
<i>P. pyrotaetum</i> - (P. acre) (Dotted S.) Common		<i>Carex</i> (2 species) (Wiregrass and Cutgrass) Common
		<i>Pontederia cordata</i> (Pickering Weed) Rare
		<i>Ceratophyllum demersum</i> (Ceratoph) Rare
		<i>Gastalia odorata</i> - (White Waterlily) Rare
		<i>Bidens</i> spp. (Beggarstick) Common

Common Woody Plants:

<i>Pinus banksiana</i>	-	Jack Pine
<i>Pinus strobus</i>	-	White Pine
<i>Pinus resinosa</i>	-	Red Pine
<i>Salix</i> spp.	-	Willow
<i>Populus tremuloides</i>	-	Quaking Aspen
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<i>Aronia melanocarpa</i>	-	Chokeberry
<i>Rubus</i> spp.	-	Blackberry, Raspberry, Dewberry



Common Woody Plants: (Cont.)

<i>Rosa</i> sp.	- Rose
<i>Prunus pennsylvanica</i>	- Pin Cherry
<i>Vaccinium pennsylvanicum</i>	- Blueberry
<i>Gaylussacia baccata</i>	- Huckleberry
<i>Rhus copallina</i>	- Dwarf Sumach
<i>Myrica asplenifolia</i>	- Sweet Fern

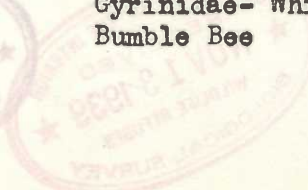
Herbaceous Plants:

<i>Chenopodium album</i> (?)	- Pigweed
<i>Polygonum</i> spp.	- Smartweeds
<i>Lespedeza capitata</i>	- Bush Clover
<i>Ambrosia artemisifolia</i>	- Common Ragweed
<i>Erigeron canadensis</i> (?)	- Horseweed
<i>Solidago</i> spp.	- Goldenrod

Animals Observed:

Invertebrates:

Sponge (?)*	
Bryozoa	
<i>Pectinatella magnifica</i>	
Unknown sp.*	
Mollusca	
Snails	
<i>Physa</i> * - Common	
Unknown sp.	
Arthropoda	
Crayfish - (Carter) (Cambarus)	
Water Spider* - Common	
Insecta	
Mosquito - (8/16-abundant in evening) (Culicidae)	
Chironomid* - Abundant (Chironomidae)	
House Fly (Muscidae)	
Black Fly(?) - 7/24-larva on stop-logs, dam 12, etc. (Simuliidae)	
Deer Fly (Tabanidae)	
Horse Fly - (larva*?) (Tabanidae)	
Red-legged Locust - Abundant (Locustidae)	
Dragon Fly* - Common (Anisoptera)	
Damselfly* - Common (Zygoptera)	
Notonectidae - Black Swimmer* - Common	
Gerridae - Water Strider* - Common	
Water Bug* - Common (Belostomatidae?)	
Gyrinidae - Whirligig Beetle*	
Bumble Bee (Bombidae)	



Common Woody Plants: (Cont.)

- Rose sp.
- Prunus pennsylvanica
- Vaccinium pennsylvanicum
- Gaylussacia baccata
- Rhus copallina
- Myrica asplenifolia
- Rose
- Pink Cherry
- Blueberry
- Huckleberry
- Dwarf Sumach
- Sweet Fern

Herbaceous Plants:

- Chenopodium album (?)
- Polygonum spp.
- Lespedeza capitata
- Ambrosia artemisiifolia
- Erigeron canadensis (?)
- Solidago spp.
- Pigweed
- Smartweed
- Bush Clover
- Common Ragweed
- Horseweed
- Goldenrod

Animals Observed:

Invertebrates:

- Sponges (?)
- Hydroids
- Pectinaria magna
- Unknown sp.
- Molluscs
- Snails
- Physa - Common
- Unknown sp.

- Arthropods
- Grasshopper - (Carter)
- Water Spider - Common
- Insects

- House Fly - (8/18-abundant in evening)
- Chironomidae - Abundant
- Black Fly (?) - 7/24-larva on stop-logs, dam 12, etc.
- (Stenobothrus)
- (Tabanidae)
- (Lecanidae)
- (Anisoptera)
- (Diptera)

- Deer Fly - (larva?)
- Horse Fly - Abundant
- Red-legged Locust - Common
- Dragon Fly - Common
- Damselfly - Common
- Notonectidae - Black
- Gerridae - Water Strider - Common
- Water Bug - (Belostomatidae?)
- (Bombidae)



Mud Dauber (Sphecidae)
Green Grasshopper - (Tettigoniidae)
Unidentified sp.-8/17 - N.end #2 in rice bed- Abundant.
Unidentified sp.*-larvae in Brasenia leaves.

Vertebrates:

Fish

Bullhead* - Abundant
Minnows (sp.?)
Carp - Common
Pickeral - Common
Sunfish* - Common

Amphibians

Bufo americana* -(Toad) - Common
Rana pipiens* - (Leopard Frog)
Rana clamitans(?)* - (Bull Frog)
Tree Frog - (7/28-N.W.Cor.Sec. 6. 18-3)

Reptiles

Turtles

Chelydra serpentina- Snapping Turtle*-8/31-dam 4; etc.
Chrysemes picta-Painted Turtle-8/17-N.End #2 in ditch-3;etc.
Pseudemys (?) -7/28- on land- E.side Sec. 6. 18-3; 8/3-spring
by goose pen (1 dead)

Snakes

Garter Snake
Bull Snake
Pine Snake
Rattlesnake (Reported)

Birds

- ✓ Pied-billed Grebe-(7/25-#2-8ad., 3 ju.; 8/9-#19-1)-
usually in open water.
- ✓ Double-crested Cormorant- (8/15-20 ch.e.of ditch fork,
#2-5; 8/17 & 8/18- dam #2-5)
- ✓ Great Blue Heron- (7/18-#1-2; 7/25-#2-3; 8/9-#19-6; 8/30-W.
side Sec.32.19-3-8)- common esp. in areas of light brush.
- ✓ American Egret-(7/25-#2-4; 8/10-N.of island, #1-3; 8/17-#2, be-
tween ditches-2; 8/21-N.of H.Q.-1; 8/22-H.Q.-5; & N.of
island-2)
- ✓ Eastern Green Heron- (7/18-#1, in brush near island-7;
7/25-#2-4)- usually in brush.
- Black-crowned Night Heron(?) - (8/24-N.W.Cor.Sec.5.-18-3-3;
8/30-N.W.Cor.Sec.5-18-3-4).
- ✓ American Bittern-(7/25-#2-6; 8/9-#19-1)- Common in marsh
areas (Cover Road).

Unidentified sp. - larvae in Brasenia leaves.
Unidentified sp. - 8/17 - N. end #2 in rice bed - Abundant.
(Tettigonidae)
(Sphenocidae)
Mud Dauber

Vertebrates:

Fish

Shiner* - Common
Pike* - Common
Carp - Common
Minnow (sp.?)
Bullhead* - Abundant

Amphibians

Tree Frog - (7/28-N.W. Cor. Sec. 6. 18-2)
Rana clamitans(?) - (Bull Frog)
Rana pipiens* - (Leopard Frog)
Bufo americanus* - (Toad) - Common

Reptiles

Turtles

Py Geese pen (1 dead)
Pseudemys (?) - 7/28 - on land - E. side Sec. 6. 18-2; 8/3-spring
Chrysemys picta-painted Turtle - 8/17-N. End #2 in ditch - 5:etc.
Chelydra serpentina - Snapping Turtle - 8/31-Jan 4; etc.

Snakes

Rattlesnake (Reported)
Pine Snake
Bull Snake
Garter Snake

Birds

American Bittern (7/28-4) - Common in marsh
Black-crowned Night Heron (?) - (8/24-N.W. Cor. Sec. 6. 18-2-2)
Eastern Green Heron - (7/18-4) in brush near island-1;
American Bittern - (7/28-4) - 8/17-4; 8/21-N. of H. G. - 2; 8/22-N. of
American Bittern - (7/28-4) - 8/17-4; 8/21-N. of H. G. - 2; 8/22-N. of
Great Blue Heron - (7/18-4) - 7/25-4; 8/9-4; 8/20-N.
Double-crested Cormorant - (8/18-20 ch. - of ditch fork
Red-billed Grebe - (7/25-4; 8/2-4; 8/9-4; 8/19-1)-

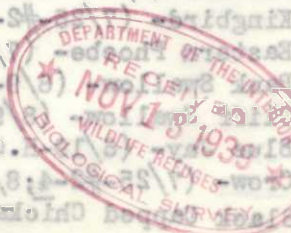


Birds (Cont.)

- ✓ Eastern Least Bittern- (8/9 & 8/18-Sec.6-18-3, ditch bank-1;
8/21- near H.Q.-1)
- ✓ Mallard-(7/18-#1-Common; 7/20-rice bed NW of dam 1-9; 7/24-S.side
Sec.30-20-3-2; 7/25-#2-18ad., 4ju.; 8/9-#19-18; 8/17-N.end
#2-75+- feeding on rice and woolgrass(?); 8/28-W.of ditch
Sec.32-19-3-25+)
- ✓ Black Duck- (7/25-#2-16 ad.& 5 ju.)- common with mallards.
- ✓ Pintail (?)
- ✓ Blue-Winged Teal-(7/25-#2-20; 8/9-#19-10; 8/17-#2, N.end-75+;
8/22-H.Q.-7)
- ✓ Wood-Duck-(8/17-#2, brush areas NW side of Sec.6 & center of
Sec.31. Common.)
- Ring-Necked Duck- (Hunt)
- ✓ Eastern Goshawk (?) - (Carter)- 8/9-#19.
- ✓ Red-tailed Hawk-(7/24-Sec.20-20-3-1 ju.; 8/25-Williams Rd.
Sec.30-19-3-6- migrating?; 9/14-H.Q.-1)
- Broad-Winged Hawk- (?)
- ✓ Marsh Hawk-(7/24-N.side Sec.36-20-2-3ju.; 7/24-ranger station-2;
8/17-#2-common)- Common over most of area.
- ✓ Osprey(?) - (7/20-near H.Q.-1; 8/30-SE Cor.Sec.32-19-3-2)
- ✓ Sparrow Hawk- (8/8 & thereafter- Contact Station- 2 or 3)
- ✓ Ruffed Grouse-(7/19-E.rd.to dam 1-6 ju.& lad.; 8/9-E. of Contact
St.4 ju.& 1 ad.; 8/23-E.of Contact Sta.-2)
- ✓ Prairie Chicken
- ✓ Sharptail Grouse-(7/19-Carpenter's-5 ju.; 7/24 N.edge Sec.1-20-2-
1 ad.& 3 ju.; 7/24-1 mi.above dam 8- 1 ad.& 6 ju.; 7/25-N.Sec.5-
19-3-4 ad.; 8/9-Sec.28-19-3-22)
- ✓ Bob-White-(7/19-Carpenter's-1; 7/24-below ranger sta.-1 ad.& 1 ju.;
8/29-Sec.28-19-3-2)
- ✓ Ring-Necked Pheasant- (H.Q.-1 female)
- Sandhill Crane- (Hunt, Carter)
- ✓ Virginia Rail- (7/25-#2-1)
- ✓ Sora- (8/28 NE of duck trap A-1; 8/29-Sec.28-19-3-1)
- ✓ Coot-(7/18-#1-nest on floating peat-5 eggs; 7/20-NE end Sec.5-
18-3-1ju.dead; 9/13NW Cor.Sec.5-18-3-12)
- ✓ Killdeer- (8/9-#19-2-)
- ✓ Eastern Solitary Sandpiper- (7/25-#2-3; 8/9-#19-2)
- ✓ Greater Yellowlegs- (8/17-#2-1)
- Sandpipers (Unident.)-(8/17-#2-N.End-15)
- ✓ Black Tern-(7/25-#2-10; 8/9-#19-Common)
- Mourning Dove- Common
- ✓ Great Horned Owl- (8/9-1 mi. S. of Contact Station)
- Nighthawk- (8/9-#19-1; 8/23-Contact Sta.-20+- migrating?;
8/25-18+ Migrating?)
- Eastern Belted Kingfisher- (7/25-#2-4)
- Flicker-(9/14-Sec.5-18-3-1)
- Kingbird- (7/25-#2-2)- Common
- Eastern Phoebe- (7/25-#2-1; 9/14-H.Q.-1)
- Bank Swallow- (8/9-#19-Common)
- Cliff Swallow- (8/9-#19-Common)
- ✓ Blue Jay- (6/19-H.Q.-1)
- ✓ Crow- (7/25-#2-4; 8/9-#19-1)
- Black Capped Chickadee-(9/14-H.Q.-1)

Birds (Cont.)

- ✓ Eastern Least Bittern - (8/2 & 8/18-sec. 6-18-3, ditch bank-1)
8/21 - near H. G. - 1)
✓ Mallard - (7/18-41-Common; 7/20-rice bed NW of dam 1-3; 7/24-2-side
Sec. 20-20-2-3; 7/25-42-18ad. 4 ju.; 8/9-419-18; 8/17-N. end
#2-75+ - feeding on rice and woolgrass(?) 8/28-W. of ditch
Sec. 22-19-3-25+)
✓ Black Duck - (7/25-42-18 ad. & 2 ju.) - common with mallards.
✓ Pintail (?)
✓ Blue-Winged Teal - (7/25-42-20; 8/9-419-10; 8/17-42-N. end-75+;
8/22-H. G. - 7)
✓ Wood Duck - (8/17-42, brush area NW side of Sec. 6 & center of
Sec. 21. Common.)
✓ Ring-Necked Duck - (Hunt)
✓ Eastern Osprey (?) - (center) - 8/9-419.
✓ Red-tailed Hawk - (7/24-sec. 20-20-2-1 ju.; 8/25-Williams Rd.
Sec. 20-19-3-6 - migrating? 9/14-H. G. - 1)
✓ Broad-Winged Hawk - (?)
✓ Marsh Hawk - (7/24-N. side Sec. 20-20-2-3 ju.; 7/24-ranger station-2;
8/17-42-common) - common over most of area.
✓ Osprey (?) - (7/20-near H. G. - 1; 8/20-SE cor. Sec. 22-19-3-2)
✓ Sparrow Hawk - (8/8 & thereafter - contact station-2 or 3)
✓ Rufled Grouse - (7/19-E. rd. to dam 1-2 ju. & 1 ad.; 8/9-E. of contact
St. 4 ju. & 1 ad. 8/23-E. of contact Sta.-2)
✓ Prairie Chicken
✓ Sharp-tail Grouse - (7/19-Carpenter's - 2 ju.; 7/24 N. edge Sec. 1-20-2-
1 ad. & 2 ju. 7/24-1 mi. above dam 8-1 ad. & 2 ju. 7/25-N. Sec. 2-
19-2-4 ad.; 8/9-sec. 28-19-2-22)
✓ Bob White - (7/19-Carpenter's - 1; 7/24-below ranger sta. - 1 ad. & 1 ju.;
8/29-sec. 28-19-2-2)
✓ Ring-Necked Pheasant - (H. G. - 1 female)
✓ Sandhill Crane - (Hunt, center)
✓ Virginia Rail - (7/25-42-1)
✓ Sora - (8/28 NE of duck trap A-1; 8/29-sec. 28-19-3-1)
✓ Coot - (7/19-1 nest on floating boat-2 eggs; 7/20-NE end Sec. 2-
18-8-1 ju. head; 9/12 NW cor. Sec. 5-18-3-12)
✓ Killdeer - (8/9-419-2-1)
✓ Eastern Solitary Sandpiper - (7/25-42-2; 8/9-419-2)
✓ Greater Yellowlegs - (8/17-42-1)
✓ Sandpiper (Undulant?) - (8/17-42-N. End-12)
✓ Black Tern - (7/25-42-10; 8/9-419-Common)
✓ Mourning Dove - Common
✓ Great Horned Owl - (8/9-1 mi. S. of contact station)
✓ Night Hawk - (8/9-419-1; 8/23-Contact Sta.-20+ - migrating?;
8/25-18+ migrating?)
✓ Eastern Baited Kingfisher - (7/25-42-4)
✓ Flicker - (9/14-sec. 2-18-2-1)
✓ Kingbird - (42-2) - Common
✓ Eastern Towhee - (7/25-42-1; 9/14-H. G. - 1)
✓ Cowbird - (8/9-419-1)
✓ Starling - (9/14-H. G. - 1)



Birds- (Cont.)

Wren- (sp.)- 8/17-N.end #2, in ditch-1)
Catbird- (7/25-#2-2)
Brown Thrasher- (6/19-H.Q.-1 ad.&1 ju.)
Yellow Warbler (?) - (7/25-#2-1)
Bobolink- (6/22?-E. side of area)
Red-Wing- (6/19-H.Q.-Common; 7/25-#2-2 flocks)
Baltimore Oriole- (6/19-H.Q.-Common)
Indigo Bunting- (7/27-SW part of area-2)
Goldfinch- (8/9 S. of Contact Sta.-3)
Sparrows (Several sp.)- Numerous along roads.

Mammals

Mole- (burrows common)
Raccoon- (Reported)
Skunk- (Tracks common on roads).
Badger- (Holes common)
Mink- (Reported)
Fox- (Reported)
Coyote & Wolf- (Reported)
Dog- (Sec.5-18-3-2; Sec.1-20-2-2)
Red Squirrel- (8/8 Contact Sta.-3 dead in traps)
Gray Squirrel- (8/12-between dam 1 and E. side of flowage- Common)
Ground Squirrels- (several species)
Beaver- (7/20-N. of dam 1-1 young dead; 7/24 N. side Sec.30-20-3-dam; 7/24-dam 8-1 ad.female?, dead & bloated; 8/29-Sec.28-19-3-fresh cuttings along ditch.
White-footed Mouse- (9/15-secondary H.Q.-1)
Muskrat- (8/18-SE Cor.-#2-1; and holes between flowage and borrow pit; cattail cuttings numerous.
Cottontail- Common
White-tail Deer- (6/20-Sec.5-18-3-tracks numerous, bedding place; 8/9-Carpenter's-1; & #19-1; 8/9 W. side Sec.31-19-3-tracks common; 8/28-island, N. side Sec.5-18-3-tracks and beds)

* - Species collected

_____ - number of individuals observed, or signs observed.
Order of observation notes: 1) date, 2) place, 3) number observed.

In the absence of Messrs. Janzen and Kreager, this report is being forwarded without comments. Mr. Hunt is being advised that his signature should appear on these reports in the future.

D. H. Janzen
Regional Director

By *Walter J. Heison*
Walter J. Heison
Acting

Birds- (Cont.)

Wren- (sp.) - 8/17-M. and 1/2. in ditch-1)
 Catbird- (7/25-2-3)
 Brown Thrasher- (8/19-M. 1 ad. 1 ju.)
 Yellow Warbler (1) - (7/25-2-1)
 Bobolink- (8/22-M. side of area)
 Red-Wing- (8/19-M. 1 ad. 1 ju. - 2 flocks)
 Baltimore Oriole- (8/19-M. 1 ad. 1 ju. - common)
 Indigo Bunting- (7/27-M. part of area-2)
 Goldfinch- (8/22-M. of Contact Sta.-2)
 Sparrows (Several sp.) - Numerous along roads.

Mammals

Mole- (burrows common)
 Raccoon- (Reported)
 Skunk- (Tracks common on roads)
 Badger- (Holes common)
 Mink- (Reported)
 Fox- (Reported)
 Coyote & Wolf- (Reported)
 Dog- (Sec. 5-13-2; Sec. 1-20-2-2)
 Red Squirrel- (8/8 Contact Sta.-3 dead in traps)
 Gray Squirrel- (8/12-between dam 1 and E. side of flowage- common)
 Ground Squirrel- (several species)
 Beaver- (7/20-M. of dam 1-1 young dead; 7/24-M. side Sec. 30-30-2-2)
 dam; 7/24-dam 2-1 ad. female; dead & floated; 8/29-sec. 28-12-2-2)
 fresh cuttings along ditch.
 White-footed Mouse- (8/12-secondary H. 1-1)
 Muskrat- (8/12-22 Cor. 1-1; and holes between flowage and borrow pit; cattail cuttings numerous.
 Cottontail- common
 White-tail Deer- (8/20-sec. 5-12-2-tracks numerous; bedding place; 8/29-Carpenter's-1; 8/12-1; 8/9-W. side Sec. 31-12-2-tracks common; 8/28-island, W. side Sec. 5-12-2-tracks and beds)

* - Species collected
 - number of individuals observed or signs observed.
 Order of observation notes: 1) date, 2) place, 3) number observed.

In the absence of Messrs. Janzen and Kreeger, this report is being forwarded without comment. Janzen is being advised that his signature should appear on these reports in the future.

D. H. Janzen
 Regional Director

By Walter J. Nelson
 Acting

