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SQUAW CREEK NATIONAL WILDLIFE REFUCE

QUARTERLY NARRATIVE REPORT

NOVEMBER, DECEMBER AND JANUARY 1942

UNITED STATES DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

MOUND CITY, MISSOURI

404

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I. General

A. Weather Conditions.

The nearest official weather recording station is at St. Joseph, Missouri, which is about 30 air line miles southeast of this refuge. There is attached to the narrative report, for the quarter ending July 31, 1941, a meteorological summary from the St. Joseph station covering the period since 1910. The following table covering weather for the last three month was compiled from data received from the St. Joseph station:

Month	Snow fall	Precipi tation	Max. Temp	Min. Tem.
November		.96"	74	20
December		2.04	67	13
January	2.8"	•28	62	-8
Totals	2.8"	3.28"	74°	-8°

On each of the first eleven days of January there was a minimum of below zero or very little above, however the mean temperature for the month was 28.4 degrees, or 2.9 degrees above normal. This was due to the very warm days during the latter half of the month. The normal precipitation for this period, at the St. Joseph station, is 4.14", which gives us an .86" deficiency for the period. St. Joseph received 72% of the possible sunshine for the month of January.

Unofficial records are kept, for the refuge, by Mr.

H. Munkres about one half mile northeast from

refuge headquarters. The following data are from

Mr. Munkres records:

Month	Rain fall	Max. temp.	Min. temp.	
November	•55"	76 Degrees	20 Degrees	
December	1.30	63	12 "	
January	1.10	56 "	-10 "	
Total	Extre 2.95" mes	76 "	-10 "	

eight inches of snow that fell during the night of December 31 and all day of January 1. This snow ushered in a "norther" that held until January 11. The warmest daily minimum for this period was six above zero. Seven nights saw readings of zero or below. This storm drove south all ducks except about 100 mallards. It also severely handicapped the efforts of our share-trappers. Due to snow drifts they were unable to get to the refuge at all for three days. The snow was about 7 or 8 inches deep on the level. Main roads were opened in two or three days.

B. Water Conditions.

The water gauge readings for the south and northwest pools, as of January 31, were as follows:

	South Pool	North-west Pool
Spillway Elevation	855.00	856.00
Gauge reading	851.40	855.80
Difference	3.60	.10
Gauge reading 1/31/41	849.30	855.04

Readings for the north-east pool are not shown as it is now used only as a settling basin. The wtaer in the northwest pool is standing .76' higher than at this adde of last year, and the south pool 2.1' higher than at this date last year. Due to the engineering project in the west part of the south pool it has been necessary to spill water thru the radial gate. The gate has been kept open most of the time during this period.

C. Fires.

There have been no fires during the period covered by this report.

II. Wildlife

A. Waterbirds.

- 1. Populations and behavior.
 - (a) Species.

Pied-billed grebe. There were a few grebes on the refuge at the begining of this quarter. By the middle of November they were all gohe.

White Pelicans. About 25 white pelicans were here on November 1. All but two of them left in a week or ten days. The last two were seen early in December, after the pool was frozen over, standing on ice. It is presumed they weres sick or wounded birds.

Great blue herons. On November 1 we had some 15 or 20 of these birds on the refuge. None were seen after November 20.

Canada Geese. A few "honkers" were on and near the refuge, probably about 200, at the begining of this period. The largest number seen at any one time was 450 or 500 on or about December 10. There were 75 or 100 hanging around the goose pen on January 1. They were all gone by the middle of the freeze-up.

White-fronted Goose. There was a crippled white-fronted goose stayed on the northwest pool since last spring. Many attempts to capture it had failed, until the January freeze-up. Then he was picked up and brot to the goose pen. He is in good condition, except for a broken wing. A few days after he was placed in the goose pen he was joined by another white-fronted who has stayed on.

Mallards. On November 1 there was an estimated 85,000 mallards on the refuge. Their number increased rapidly until the peak on November 15 when we had about 175,000 birds. This number decreased to about 100,000 on December 20. They continued to leave and on December 30 there were about 60,000. Most all of these birds left the refuge in the early days of the January freeze-up, excepting some 75 or 100 birds who kept some water open in the middle of the refuge. Some seven or eight inches of snow had covered practically all feed. A check on January 26 disclosed 23 or 2400 mallards. On January 31 there were about 2800 mallards on the refuge.

Black ducks. There were about 200 blacks here on the opening day of this quarter. Only a few stayed on until December 31. One was banded in December.

Baldpate. On November 1 there were not more than 1500 beldpates on the job. These increased to about 3000 by November 15. Very few were noted after December 1.

Pintails. About 21,000 pintails were here on November 1. They increased rapidly until we had about 75,000 on November 15, which was the peak concentration. On December 20 the

the number was down to about 6500 or 7000. When the freeze-up hit us we had only about 3000. Not one stayed thru the cold weather. On January 26 about 300 had returned and at the end of the period we had 500 birds.

Blue-winged teal. It is believed we had not more than 25 or 30 blues at the beginning of this period and they soon left.

Shovellers. We had about 1500 shovellers here on November 1. The peak concentration was about the middle of the month when we had 2500 or 3000 birds. By the middle of December they were all gone. A few days before the end of the period three shovellers were seen on the south part of the refuge.

Wood ducks. We had about 260 "woodies" here on November 1 but they soon left and none were seen after November 20. It is planned to erect some nesting boxes with the hope of increasing their population here.

Canvas backs. An occasional canvas back was noted during the first half of this period.

Lesser scaup. We had about 1250 lesser scaups on November 1. The number increased to about

2500 or 3000 on November 15. Then they began leaving and by December 1 only an occasional bird was seen.

American Mergansers. The first merganser seen on the refuge during this quarter was on or about November 15. By the end of the month one could usually see 12 to 15 birds on the refuge. One day early in December 50 birds were seen. They all left when the freeze-up came. Some 8 or 10 individuals were seen during the last week of January.

Coots. Only a very few coots stayed here until

(b) Groupd.

Naterfowl. There has been, roughly, about the same concentration of birds on the refuge this winter as there was during the winter of 1940-1941. However, there were far more ducks in the county this winter. The heavy rainfall of last October left water in all sloughs and low-lying areas, where-as, in the previous winter there was very little water in this county, except on the refuge. This year's duck "census" indicated only 2300 ducks on the refuge whereas the "census" of 1941 reported about ten times that number. This decrease was due to the freeze-

up of early January. The heavy ice stayed until about January 24. Only about 100 birds stayed thru the cold weather. In spite that ice froze to a deapth of 12 inches in exposed areas, the ducks kept a shall erea open.

Shore birds. No shore birds have been seen during the period covered by this report.

Gulls. About 8 or 10 Franklin gulls were seen during the latter part of January. They stayed only a few days and left before the end of the period.

PAS

2. Food and cover. There was a bounteous crop of natural food for wildfowl last fall. The ducks did not touch the corn fields until the latter part of Ngovember and they never did quit feeding on smart weed and millet entirely. There was a little water in the northeast pool during the latter part of January and that was where one could always see ducks feeding. There is still ample food in the corn fields for the spring flight. No supplementary feeding was done this winter except in the goose pens and some feeding was done during the freeze-up. During this period we have feed only 250 bushels of corn and 15 bushelds of mixed grain (wheat & oats).

3. Diseases

(b) Lead poisoning. The only trouble we have had along this line was lead poisoning. Several specimens were posted and found to contain shot. One mallard duck that was posted was found to have 57 lead shot in her gizzard. Only a few dead birds were found, compared to the heavy concentration here.

B. Upland Game Birds.

1. Populations and behavior.

Dove. The mourning dove is the most populous upland game bird at this station. An occasional dove was seen during the first third of this period. Aparently none of them spend the winter here.

Pheasants. A few pheasants were seen while the snow was on the ground during the first half of January. They were fed by refuge personnel.

Quail. No quail have been seen during the period covered by this report.

- D. Fur-bearing animals, Predators, Rodents and others.
 - 1. Populations and behavior.

Musk rats. After vegetation was killed by freezing weather/estimates of the population of rats believed the lesser figure was rather close to the entire population on the refuge. Authority was granted for share-trappers to take 2400 rats. 3 Owing to the freeze-up we were unable to take this many and only 1895 rats were taken by the share-trappers and refuge personnel. There are plenty left for breeding stock. There is not doubt that the trappers would have taken their alloted 2400 rats if they could have had a break on the weather. A detailed report of the trapping activities will be included in the April 30 narrative report.

Mink. There are many mink on this refuge. The rat trappers took 11 mink by accident and one was found that had been killed (probably by a dog). Trapper Whipple estimated 75 mink in that part of the south pool trapped by him. The mink did considerable damage to trapped rats.

Raccoons. An occasional "coon", from the hills, visits the refuge, as is disclosed by sign.

It is believed none live on the refuge.

Skunks. There are a few skunks on this refuge.

Their sign can be seen occasionally and one was found, by the trappers, that had been killed by a dog.

O'possum. There are a few "possums" on the refuge.

One was taken accidently by one of the rat trappers

and an occasional one is seen by refuge personnel.

Coyote. Coyote sign was common in the snow, tho it is believed we do not have many here. Either, several were seen by refuge personnel, or one was seen several times. One was killed by running under one of the refuge trucks during the week ending January 24.

Ground hogs. There are some ground hogs living in our levees and they should be controlled. It is planned to institute a campaign against them in the near future.

House cats. We are never without a surplus of fieral house cats. They are liquidated at every opportunity by the refuge personnel, tho none have been taken during the period covered by this report. Several have been seen.

Dogs. Dogs regularly run on the refuge. Fresh tracks were seen daily while the snow was on.

They are often seen, tho they run mostly at night.

No effort to control dogs on the refuge has been made. It is known they kill wild life.

B. Fish

- General Conditions. Conditions have been favorable to fish at this station this winter. There has been ample water in the northwest and south pools. Tho, we had twelve inch ice during the freeze-up that had a light coat of snow on it, the fish did not suffer. In the south pool the ducks kept a small pool of water open and musk rats kept small openings in both pools. The situation was marefully observed and there was no indication of lack of air for the fish. No stocking has been done this quarter. It is known that there are bull heads, black perch, blue gills, carp, buffalo, shad and suckers. It is probable that we have other species. The undesireables in the above list came in thru the south radial gate while it was open last fall. We cannot report as to the success of last fall's stocking at this time.
- III. Refuge Development and Maintenance.
 - A. Physical Development.
 - 1. All major development is done by a WPA Federal

 Agency Project under the able supervision of Mr.

 John Dahl. The main project being worked on at this
 time is the Squaw Creek Ditch thru the refuge.

The average number of workers employed thru this period was 33. The ditching is done by a General Excavator and during this period 7400 cubic yards of earth was moved and the ditch is 63% completed. Three hundred twenty seven cubic yards of stone was hauled from the west levee and placed near the site for the new spillway at the south end. Considerable work was done on the control structures, that are being built to control water in the northeast and northwest pools. Ten hundred eighty nine man-days was worked on this job. The west structure is now complete and the base has been proured for the east structure, also the footing has been completed for the radial gate. All piling has been driven for the radial gate structure. Seep water has been a decided hindrance in this work and a lot of mandays was consumed in removal of this water. Fair weather is necessary for the completeion of this project.

B. Plantings.

2. The only cultivated crop farmed by refuge personnel was a grass mixture with wheat for a cover crop, sowed in the goose pasture and reported on in the last narrative report. This seeding is coming thru the winter in fine shape. The snow gave it ample protection during the January freeze-up. The quarterly grain report for this quarter was submitted under

separate cover.

- D. Distribution of Seed and Mursery Stock.
 - 1. Shipments. A car load of feed, consisting of ll5,690# of shelled corn and 9,060# of mixed grain (wheat & oats), was shipped to Salt Plains Refuge on November 13, 1941.

IV. Public Relations.

- A. Recreational Uses.
 - 2. Fishing. No fishing is allowed during the period covered by this report.

3. Hunting.

hunting done in this county. There are areas good for hunting on all sides of the refuge. We were informed by local hunters that last fall was the best hunting they had enjoyed in years. Quite a few hunters come to this county from St. Joseph and Kansas City. The local hunters now admit that the refuge has helped their hunting. The daily legal limit was common during last hunting season. It was no trouble for a good hunter to get his limit.

4. Number of Visitors

- (a) Official visitors were:
 - Mr. Gillett, Refuge Inspector
 - Mr. Hall, Regional Engineer
 - Mr. C. Allin, Game Management Agent
 - Mr. Ramsey, Game Management Agent
 - Mr. Harness, Engineer
 - Mr. Cave Johnson, Regional State Game Agent
 - Mr . R. Thomlinson, State Game Agent
 - Mr. P. Van Ormer, State Game Agent
 - Mr. D. Wade, Missouri University Faculty
 - Mr. Beet, State Pitman-Robertson Official.

 In addition to these official visitors we had many unofficial visitors, hunters, school teachers, amature photographers, bird lovers and plain curious.

V. Economic Uses of Refuge.

D. Cooperative Farming. On the next page is a resume of cooperative farming in tabular form. This has been a rather poor crop year. The corn on the refuge made a fair yield only. There was too much rain last spring then it was too burning dry during July and August.

Tenant	No. of Kind of Permit Grain	f Acres Planted		ent del. at leadquarters	Pent left in Field in acres	Remarks
Blair Thomas	3927 Corn 3604 Wheat	45 /	40 bu. 12 bu.	450 bu. 40 bu.	10	
George Burge	3316 Wheat & 3917 Corn	oats 25 / 70 /	21 bu. 38 bu.	180 bu. 750 bu.	0	
Jno. A. Buckles	3314 Wheat &	oats 30	12 bu.	120 bu•	0	
Vern Sollender	3315 Whaat	15	3 bu.	14 bu.	0	
Art T. Nicholson	3916 Corn	24 /	39 bu.	250 bu.	5	
Fred Cason	3914 Sorghu	m O		0	O Crop not	planted - too wet
Bryan Lippold	3915 Corn	28	34 bu.	475 bu.	0	
Bert Cottan	3918 Corn	65	34 bu.	550 bu.	14.7	
Roy Kuhn	3919 Corn	284	37 bu.	500 bu.	0	
Oren W. Hays	3925 Corn	26 🗸	38 bu.	250 bu.	6.7	
W. W. Tenny	3926 Corn	18	38 bu.	175 bu.	4	
Henry M. Miller	3945 Corn	65 /	39 bu.	1200 bu.	0	
Orville Norris	3944 corn	30 4	20 bu.	150 bu.	0	

Total- share-ofthe-crop delivered to headquearters: Corn 4750 bu.

Wheat 54 bu.

Ave. yield per acre Corn 36 bu. Wheat $7\frac{1}{2}$ bu. Wheat & Oats $16\frac{1}{2}$ bu.

Oats & Wheat 300 bu.

25 "

VI. Field Investigation of Applied Research

B. Bird Banding. This table brings our banding to date.

Species		previ- banded	Nove	ember	December	. January	Total
Mallard	1004			41	173	1.75	1223
Black duck Widgeon	3 26				2		5 26
Pintail	48			62	1		111
Baldpate Green-wing to	eal 12				2		2 12
Blue-wing te	al 63						63
Wood duck Redhead	29						29
Canvas-back	1						7
Coot Bittern	18						18
American cro	_						1 4
White-front	se 1						1
Marsh hawk		× 10	2				ī
Ring neck Pheasan	t 1						1
Great horned					The last	1	ī
Totals	1219			103	178	6	1505

A summary of recoveries will be included in the next narrative report.

Respectfully submitted

J. K. Walton, jr.
Refuge Manager

February 10, 1942



VI. Field Investigation of Applied Research

B. Bird Banding. This table brings our banding to date.

reter	Jenuary	December	Movember	previ-		Species
1225	375	173	41		1004	Mallard
5		2			38	Madeeon.
26			62		48	li-tmi
2		S	20		OX	eds bla
2.1					SI Lees	Green-wing
80						Blue-wing to
68					29	
7					ī	
					31	Coot Coot
18					1	ttern
1 4						American cro
*						White-front
1					I ee	
1					I	
						Ring neek
I						Phonestr
I	1	671			FAC	Totals
1,505	9	178	100		6797	272001

A summary of recoveries will be included in the next nerrative report.

Respectfully submitted

J. H. Walton, jr. C Refuge Ibnager

February 10, 1942



