

B622 Narrative Report Des Lacs NWR 1972

DES LACS NAT'L WILDLIFE REFUGE

NARRATIVE REPORT  
FOR  
CALENDAR YEAR 1972

PERMANENT PERSONNEL

JAMES E. FRATES	-	REFUGE MANAGER
ELMER M. RICHWALSKI	-	MECHANIC, HEAVY DUTY
GERALD L. FELCH	-	MAINTENANCEMAN
DONALD E. LINDBERG	-	CLERK

TEMPORARY PERSONNEL

MARTY JORGENSEN	-	SUMMER AID (YOC) 7/5-9/1/72
MICHAEL JONES	-	SUMMER AID (YOC) 7/5-9/1/72
DANIEL C. SHULZ	-	SUMMER AID (YOC) 7/5-8/25/72
ARLENE R. NEUMEN	-	STUDENT AID (YOC) 1/1-6/16/72
DEBRA NORRIE	-	STUDENT AID (YOC) E.O.D. 10/24/72



Des Lacs National Wildlife Refuge staff, standing left to right.....  
Elmer M. Richwalski, mechanic; Donald E. Lindberg, clerk; Gerald  
L. Felch, maintenanceman; Seated... James E. Frates, refuge manager;  
Debi Norrie, student aid (YOC).

## C O N T E N T S

	<u>Page</u>
I. General	
A. Weather Conditions.....	1 - 2
B. Habitat Conditions.....	2 - 5
1. Water.....	2 - 3
2. Food and Cover.....	4 - 5
II. Wildlife	
A. Migratory Birds.....	6 - 9
B. Upland Game Birds.....	9 - 10
C. Big Game Animals.....	10 - 11
D. Fur Animals, Predators, Rodents, and Other Mammals.....	11 - 12
E. Hawks, Eagles, Owls, Crows, Ravens, and Magpies.....	12
F. Other Birds.....	13
G. Fish.....	13
H. Reptiles.....	
I. Disease.....	
J. Rare and Endangered Species...;	13
III. Refuge Development and Maintenance	
A. Physical Development.....	14 - 25
B. Plantings.....	25 - 26
C. Collections and Receipts.....	26
D. Control of Vegetation.....	27
E. Planned Burning.....	28 - 31
F. Fires.....	31 - 32
IV. Resource Management	
A. Grazing.....	33
B. Haying.....	33
C. Fur Harvest.....	33 - 34
D. Timber Removal.....	
E. Commercial Fishing.....	
F. Other Uses.....	
V. Field Investigation or Applied Research	
A. Sharp-tailed Grouse Study .....	35 - 37
B. ....	
C. ....	
D. ....	
E. ....	
VI. Public Relations	
A. Recreational Uses.....	38 - 40
B. Refuge Visitors.....	40 - 42
C. Refuge Participation.....	42 - 43
D. Hunting.....	44
E. Violations.....	44
F. Safety.....	44 - 45
VII. Other Items	
A. Items of Interest.....	46 - 47
B. Photographs.....	47
C. Signature.....	48



## I. GENERAL

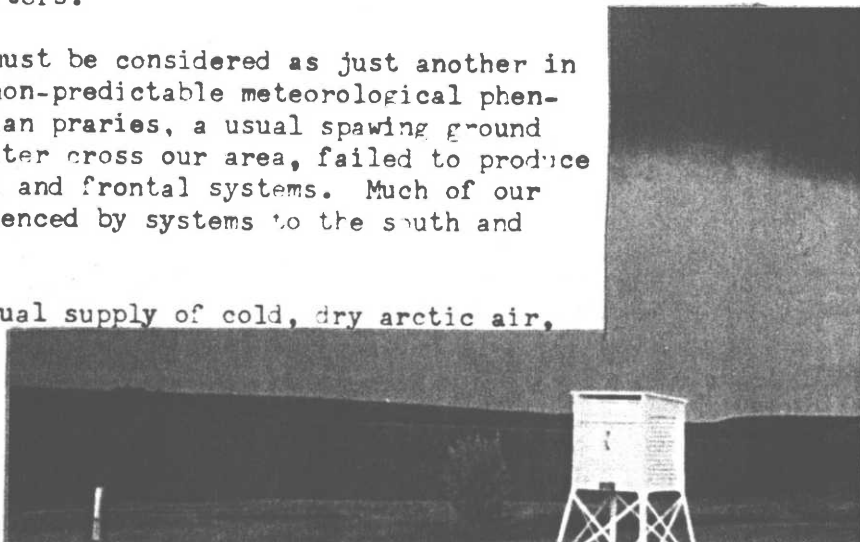
### A. Weather Conditions

	<u>Month</u>	<u>Precipitation</u> <u>Normal</u>	<u>Snowfall</u>	<u>Max.</u> <u>Temp.</u>	<u>Min.</u> <u>Temp.</u>
January	<u>.47</u>	<u>.47</u>	<u>8</u>	<u>44</u>	<u>- 34</u>
February	<u>. 82</u>	<u>.48</u>	<u>10.2</u>	<u>44</u>	<u>- 25</u>
March	<u>1.77</u>	<u>.78</u>	<u>14.5</u>	<u>49</u>	<u>- 28</u>
April	<u>.92</u>	<u>1.01</u>	<u>4.7</u>	<u>62</u>	<u>13</u>
May	<u>2.92</u>	<u>1.82</u>	<u>      </u>	<u>92</u>	<u>21</u>
June	<u>3.31</u>	<u>3.43</u>	<u>      </u>	<u>88</u>	<u>38</u>
July	<u>2.44</u>	<u>2.15</u>	<u>      </u>	<u>90</u>	<u>40</u>
August	<u>3.94</u>	<u>1.85</u>	<u>      </u>	<u>96</u>	<u>43</u>
September	<u>1.65</u>	<u>1.37</u>	<u>2.2</u>	<u>76</u>	<u>25</u>
October	<u>.23</u>	<u>.82</u>	<u>3.3</u>	<u>72</u>	<u>1</u>
November	<u>.41</u>	<u>.58</u>	<u>5.0</u>	<u>55</u>	<u>0</u>
December	<u>.20</u>	<u>.45</u>	<u>3.5</u>	<u>42</u>	<u>- 27</u>
Annual Totals	<u>19.08</u>	<u>15.21</u>	<u>51.4</u>	<u>Extremes 96</u>	<u>- 34</u>

Weather data was recorded at the official U.S. weather station located at refuge headquarters.

Weather patterns in 1972 must be considered as just another in a never ending series of non-predictable meteorological phenomena. The western Canadian prairies, a usual spawning ground for storm systems which later cross our area, failed to produce the normal run of pressure and frontal systems. Much of our weather was, rather, influenced by systems to the south and west of us.

Canada did send us her usual supply of cold, dry arctic air, however.



2

The first half of the month of January was comparatively mild, with highs on the 17th and 18th reaching a shocking 44 degrees - above! This was a welcome relief from the -31 on the morning of the 15th. Within 12 hours, the temperature had risen to a plus 34 -- a 65 degree blitz which even brought the old timers out of hibernation fighting for their hallowed place on the city park benches.

January soon became her old obnoxious self again on the 25th, with the temperature going down to a -33. The high for the January 25-30 period was a sweltering -7. The high on the 26th was -24 -- cold enough to freeze your RBU's!

Precipitation for the January - April period was 3.98", about .75" above normal. Snowfall during March was 14.50" -- almost half of our annual average. A record low occurred on March 2nd -- a -28 degrees.

May - August precipitation was 12.61" -- nearly 3" above normal. We experienced no severe weather locally, however, several tornadoes were sighted south and east of the refuge during storms in June and July.

Precipitation during the September - December quarter totaled 2.49" - nearly an inch below average. An unusually early outbreak of cold air descended upon us the first week in December. During the period December 3rd to the 10th, daytime highs were all below zero.

Total precipitation for the year was 19.08", or about 4" above average. This year marked the 5th consecutive year of above average precipitation.

## B. Habitat Conditions

### 1. Water

Stony Creek during peak of spring runoff. The new rock spillway across bottom of coulee received a real test, but remained intact.

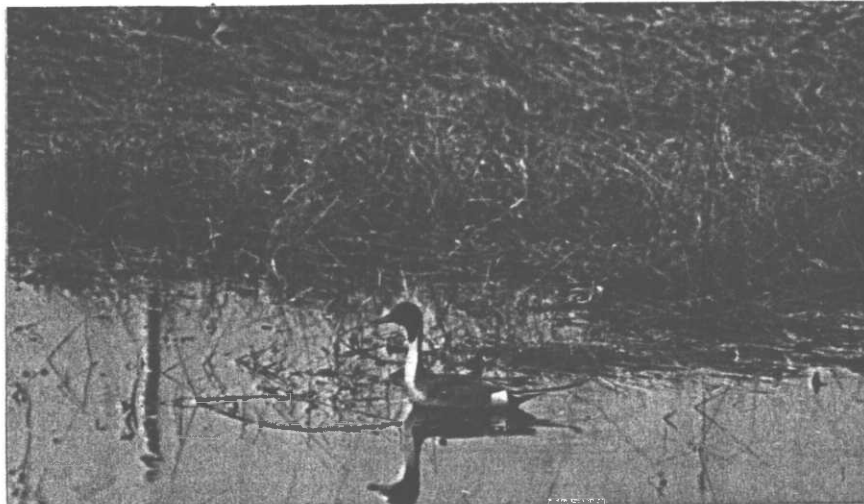


Stony Creek

The table below shows the Des Lacs pool elevations for December, 1972, indicating a comparison of guage readings at the time of freeze up with approved elevations. The amount of variation between actual and approved levels is also indicated.

<u>Pool No.</u>	<u>Dec. Elevation</u>	<u>Approved Level</u>	<u>Variation</u>
1	1784.58	1784.0	+ .58
2	1784.58	1784.0	+ .58
3	1786.16	1785.0	+ 1.16
4	1784.70	1784.0	+ .70
5	1784.98	1783.0	+ 1.98
6	1782.58	1782.5	+ .08
7	1781.76	1781.0	+ .76
8	1783.74	1780.5	+ 3.24

Habitat conditions were excellent over much of NW North Dakota in 1972. A slow spring run-off, plus timely rains throughout the summer maintained the quality of both production and brood areas.



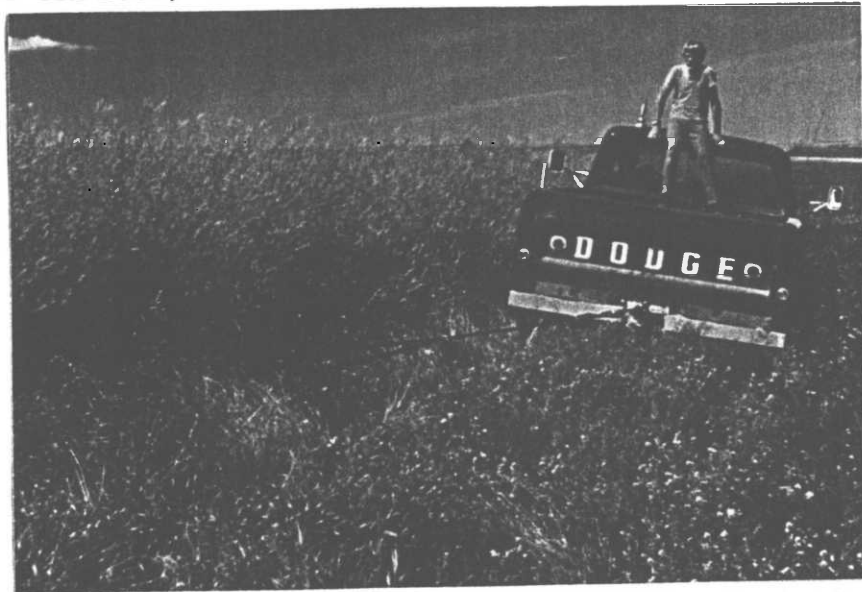
An excellent carry over of sub-surface moisture conditions from 1971 was largely responsible for the high quality habitat during the spring and summer of 1972. For the first time in several years, water was continually released into the Des Lacs River from spring run-off to freeze up. Even so, we ended the year with all pools above approved levels.

Peak outflow occurred during the week of April 10-13 with a peak release flow of 151 cfs. In contrast, the peak outflow in 1971 was only 12 cfs. According to our estimates, there was an approximate 34,700 acre feet inflow into the refuge during the year. This was nearly double the 1971 inflow, but still well below the record 63,684 AF inflow during 1970.

The year ended with an estimated net loss of 2,439 AF. At the end of the year our total storage volume was 38,320 AF, compared to the potential storage capacity of 46,191 AF. We will have storage capacity for approximately 8,000 AF to handle 1973 run-off.

## 2. Food and Cover

Because of the excellent moisture conditions, upland cover conditions were good throughout the refuge. Dense nesting cover seeded in 1971 showed remarkable growth--primarily sweet clover which attained a height of over six feet.

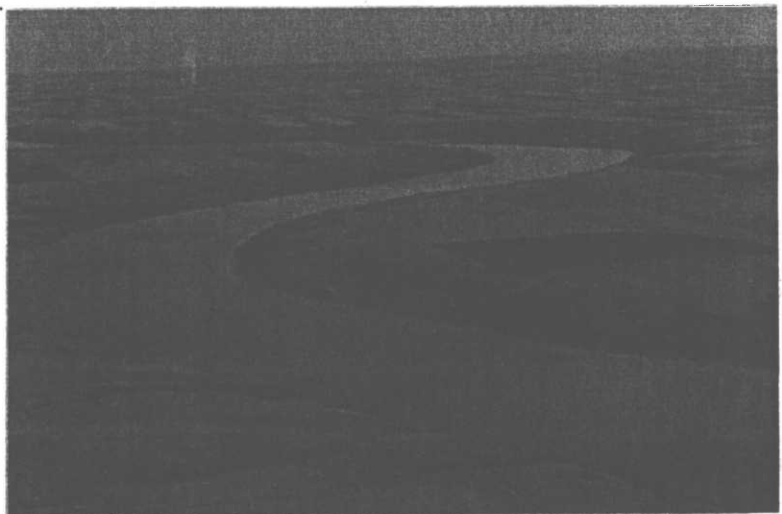


Nest dragging operation in dense nesting cover.  
Y.O.C. Danny Schultz riding shotgun.

Both warm and cool season grasses showed good vigor in 1972. Some scattered patches of both big and little blue stem were noted from the Bowbells crossing north to the Canadian line.

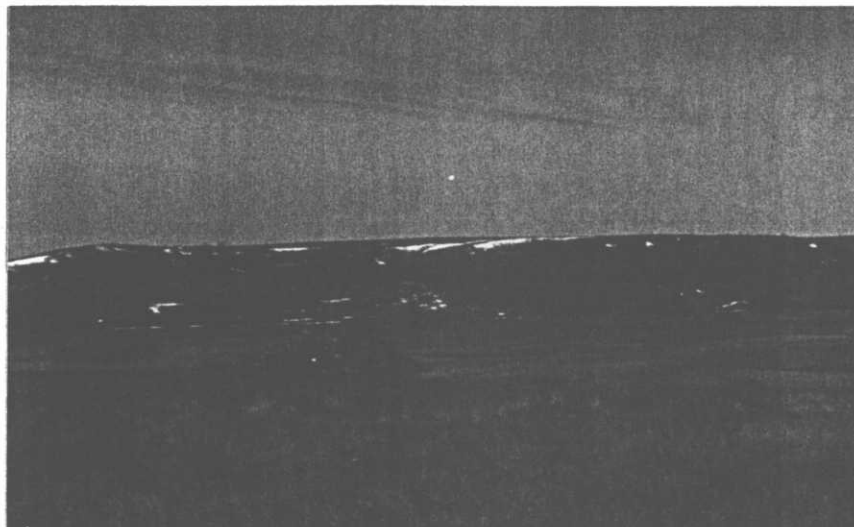
Old farm units, seeded to brome in the mid and late 1950's showed excellent growth. One of these fields, containing 40 acres was chain dragged on June 13 in an attempt to assess duck nesting density prior to a controlled burn. A total of 22 duck nests, 1 marsh hawk and 2 sharp-tailed grouse nests were located in this predominately monotypic stand of brome. Needless to say, we didn't burn it.

Intensive farming  
along refuge bound-  
ary increases impor-  
tance of habitat on  
Des Lacs.



Aquatic vegetation showed good growth in all pools except Unit 1. This unit remained too high throughout the summer to produce the usual expansive beds of sago.

We again mechanically sheared roundstem and cattail in units 3, 7 and 8 using our #12 road grader when ice conditions permitted. This has worked pretty well for us here at Des Lacs in opening up dense marsh areas.



This year we stacked sheared cattail and roundstem to create experimental goose nesting islands prior to getting our first giant Canadas in 1973. The islands were used heavily by loafing ducks and pelicans in 1972.

It was another trying year for duck depredation complaints. A combination of factors-wet grain fields, good price and yield prospects and excellent duck production again set the stage for what has become a real annual problem.

This station received 24 complaints during the period from late August to early October. Some of the early complaints were due to exceptionally high concentrations of blackbirds in barley fields. We were able to handle all complaints by loaning scare cannons and/or giving farmers a supply of rope-crackers. We also handed out a very generous and free supply of sympathy on occasion to show the more irate customers that we were all "heart".

Our policy of having farmers come to headquarters to pick up scare devices has worked out well. We were able to handle the situation with only a mininum outlay of time and manpower.

## II. WILDLIFE

### A. Migratory Birds

#### a. Swans

The first whistling swans were seen moving through the Des Lacs valley in mid April--about three weeks earlier than in 1971. The peak spring population was 250 on April 24th.

The first fall migrants were observed the first week in November, about one month later than in 1971. The peak fall population was 75 in early November.

#### b. Geese

The first Canada geese were seen on March 25th, and reached a peak of about 200 on March 28th. Very few of these spring migrants stopped on the refuge.

An unusually high number of white fronts and snows and blues stopped on the refuge during the fall. The peak white-front population was 900 on October 13. Snows and blues peaked at 1500 on about the same date.

Total goose use days was nearly 41,000 compared to 10,000 use days in 1971.

#### c. Ducks

Both pintails and common mergansers were observed moving through the valley in mid March. Spring migration was well underway in early April. Peak spring migration occurred about the third week in April. Because of excellent water conditions throughout the entire NW part of the state, the birds were well dispersed, with no large concentrations occurring on the refuge.

About 5,000 pintails congregated in the Tolley Flats area NW of Kenmare in early April, along with several hundred snows and blues and about 300 sandhill cranes. The entire Tolley basin was a real wildlife haven for a number of migratory species.

Total use days was approximately 1,500,000, a drop of about 300,000 use days from 1971 and well below the 2,130,000 recorded in 1970.

Much of this decrease is attributed to excellent habitat conditions off the refuge, as this was the fifth consecutive year of above normal precipitation in the region.

Total duck production was estimated at about 3,800, or slightly above 1971, but down from the 5800 produced in 1970.

The calculated productivity rate for dabblers was .536, and .913 for divers.

A summary of annual duck production data for the years 1960-1972 is shown in Table 1.

TABLE 1. WATERFOWL PRODUCTION. DUCKS: 1960-1972

Year	Unit 5			Unit 2-8			Total Young
	Pairs	Prod.Rate	Broods	Pairs	Prod.Rate	Broods	
1960	769	.480	370	259	1.490	440	4,583
1961	916	.350	320	626	.390	244	2,235
1962	441	.620	270	541	.360	195	2,279
1963	743	.560	415	886	.154	136	3,733
1964	532	.550	292	1869	.092	172	3,011
1965	367	.670	245	596	.500	248	3,088
1966	500	1.101	550	471	1.083	493	6,265
1967	511	.943	293	900	.536	425	5,673
1968	384	.860	178	1050	.708	718	5,555
1969	825	.331	291	789	.615	507	4,890
1970	990	.618	466	680	.746	452	5,690
1971	488	.559	266	593	.559	323	3,500
1972	652	.725	391	366	.725	238	3,794

The peak fall population was about 35,000 ducks, 25,000 of which were mallards. Most of the units froze over the second week in November, but about 10,000 mallards remained until nearly the first part of December.

Peak fall populations of ducks, geese, swans and coots for the years 1968-72 is shown in Table II.



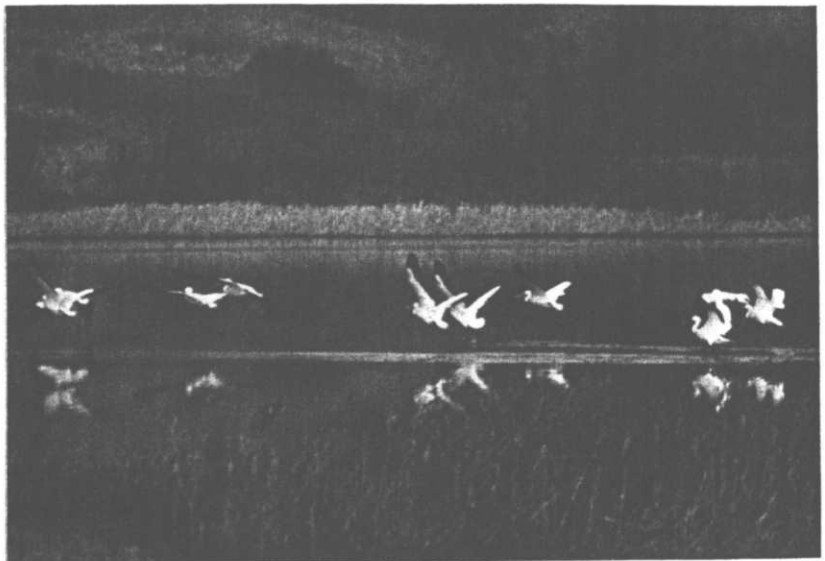
	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>5 yr. Ave.</u>
Ducks	42,610	39,540	34,000	25,000	34,720	35,174
Geese	275	200	200	300	2,400	675
Swan	397	100	100	150	75	164
Coot	7,025	3,825	4,500	4,500	6,600	5,290

## 2. Water and Marsh Birds

Most of the common species, such as horned, western and peid-billed grebes, while pelican, double crested cormants and great blue heron had arrived by late April. Sandhill cranes were first observed in mid March.

With a breeding population of over 400 pairs of western grebes, we were anticipating a record production year. However, we experienced a rather abrupt increase in water elevations

through most of the pools in June. This apparently resulted in a high percentage of nests being abandoned. High winds and wave action in other less sheltered areas also destroyed a number of nests.





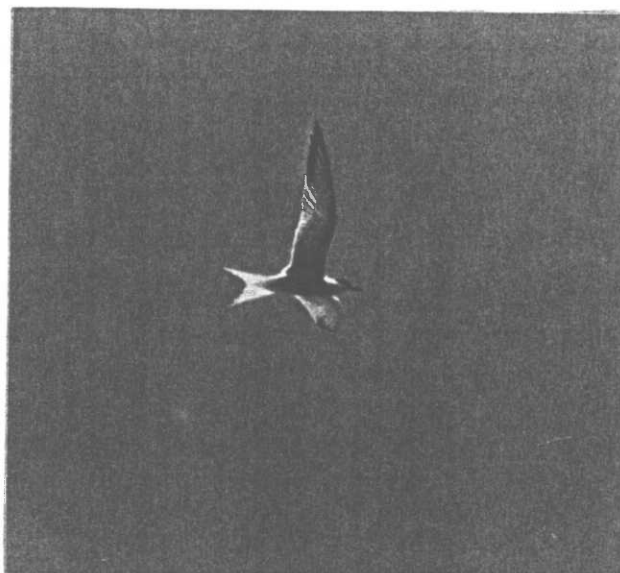
A production survey in July showed only about 100 young and nearly 900 adults.

About 250 pelicans stayed on the refuge from late April through early September.

### 3. Shorebirds, Gulls and Terns

High water throughout most of the summer and fall resulted in poor habitat conditions for many species of shorebirds. Both the Baird's and least sandpiper were seen in the upper reaches of unit 6 in early September. The fall population of long-billed dowitchers was considerably down from 1971 -- probably due to poor habitat conditions.

The Forester's, black and common terns all nested on the refuge in 1972.



### B. Upland Game

#### 1. Sharp-tailed Grouse

A census of all known active dancing grounds was made during a three day period on May 5, 8 and 9th.

A total of 414 males were counted on 18 grounds compared to 400 males on 16 grounds in 1971. The average number of males dropped from 25 in 1971 to 23 in 1972. This is still above the 1956-1972 average of 17 males per ground.

Grounds number 3 in study block 5 again had the highest number of males -- 65, compared to 70 in 1971.

One of our permittees plowed up a small portion of this ground in early June prior to seeding his tract to wheat. We did manage to get some revenge as we waited until the wheat was starting to come up before over seeding with natives. This tract has been permanently retired from the farming program.



Based on limited information from grouse studies by the North Dakota Game and Fish Department, we estimated nesting success at about 20% with an average brood size of 6. This gave us an estimated production of about 500 birds.

## 2. Ring-necked Pheasant

Following two consecutive years with rather mild winters, we did notice some increase in pheasant numbers -- primarily in the northern 1/3 of the refuge. We haven't had a high enough population in the past to even warrant developing survey techniques.

## 3. Gray Partridge

Several coveys were seen near headquarters during late summer, but their numbers continue low over the entire refuge.

## C. Big Game

### 1. White-tailed Deer

Our post-hunt season on population was estimated at about 100 animals. Snow conditions were never ideal for aerial survey work during the winter, however, year to year population

fluctuations have never been great on Des Lacs. The refuge was again open during the states  $9\frac{1}{2}$  day season from November 10-19th. A total of 353 hunters participated in the refuge hunt and shot a total of 64 deer.

Our frequency of patrol operations was reduced this year in order to minimize deer hauling. While we did haul a few animals during routine operations, we did manage to cut this activity by about 50%.



D. Fur animals, Predators, Rodents and other animals

Muskrats: Because of high water conditions throughout the refuge during the past few years - muskrats have continued to increase slightly. Many of the pools still "freeze out" even during normal winters, however. We probably had between 80 and 100 active houses on the refuge in late December.



Beaver: We have five known active lodges - the same as last year. We did experience some plugged culverts north of the Bowbells crossing and at the mouth of Taskers Coulee. Because of the problem at Taskers Coulee, four adults were "dispatched" which at least temporarily, solved the problem.

Mink: Based on trapping results, the mink population remains fairly stable. A total of 85 mink (48 males - 37 females) were taken this year, compared to 80 in 1971. This was a significant increase over 1970 when 60 were trapped.

Red Fox: Fox were observed on numerous occasions during the year. A number of active dens were sighted on the refuge during the summer.

Coyote: Like the fox, coyotes also appear to have increased during the past two years. Some of this increase is undoubtedly due to a relaxed off-refuge control program.

Porcupine: The "porky" continues to increase in both numbers and distribution. Damage to woody vegetation is apparent over much of the refuge.

#### E. Hawks, Eagles, Owls and Magpies

In mid December, maintenancemen Richwalski and Felch observed a color marked immature bald eagle south of refuge headquarters near Unit 6. A call to Dr. Frenzel at the Chippeau National Forest in Minnesota confirmed this was probably one of the birds he marked during July. The white oval patches on the under side of the wings was still readily evident at the time of observation.



#### F. Other Birds

The annual Christmas bird count, under the leadership of Dr. and Mrs. Bob Gammell, was conducted on December 17 from 8:00 a.m. to 5:00 p.m. . Several members of the Kenmare Bird Club in addition to refuge manager Jim Frates of Des Lacs and Wayne Weier of Lostwood participated in the count.

Even though weather conditions were ideal, we were short one species from the 1971 count. A total of 26 species were observed. This was the 33rd consecutive year for Kenmare's Annual Christmas count.

#### G. Fish

Although northern pike were observed in severe impoundments in 1971, no observations were made in 1972. Large schools of bullhead minnows were seen in Units 1 and 4 during the summer.

#### J. Rare and Endangered Species

No rare or endangered species were sighted on the refuge during the year, however, we did observe two species uncommon to this area.

On August 8th, a cattle egret was sighted in Unit 6. This was the first time this species has been recorded on the refuge.

In November a gray jay was sighted at refuge headquarters. This was the second consecutive year this species was observed on the refuge.

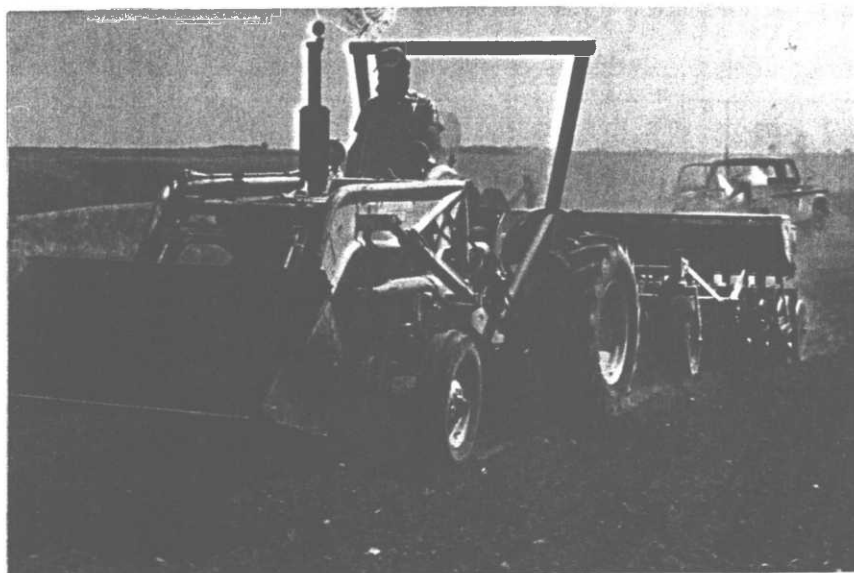
Birding interest continues to grow on Des Lacs and the surrounding area -- primarily through the national popularity of Dr. and Mrs. R. T. Gammell of Kenmare. Evidence of this is seen in the fact that the American Birding Association will be holding their first annual convention in Kenmare this coming June.

### III. REFUGE DEVELOPMENT AND MAINTENANCE

#### A. Physical Developement

##### Soil and Moisture

##### a. Seeding



Seeding grass on Unit A-6

An estimated 43.0 acres of cropland strip were seeded to mixtures of sweet clover, alfalfa and tall wheatgrass. This seeding is an integral part of our rotation program, and also part of a planned effort to reduce production and combine strips. Up to this year refuge croplands contained as many as 29 separate crop strips.

b. Weed Control



Spraying leafy spurge

Weed control operations were carried out on a total of 208 acres of refuge lands. This included 4.4 acres of grassland and retired cropland, as well as 204 acres of small grain crops treated by farm cooperators.

Over 250 individual patches of leafy spurge were treated with Tordon by refuge crews during early July. Tordon has proven to be the only effective chemical in controlling this pest plant. Tordon was used on retired croplands and grasslands; but not on active croplands or grazing areas. Treatment of this weed is essential to reduce seed production and to prevent its spreading to adjacent areas, both on and off the refuge.

c. Fencing

Boundary fences were checked by refuge personnel prior to the grazing season. However, all grazing permittees were required to inspect and repair the fences of their respective units. The reason being a lack of staff manpower and

available time, and other priority work.

The south fence of Unit G-14 was altered very slightly, and a new approach and gate built at the bottom of the rebuilt county road right-of-way in section 18.

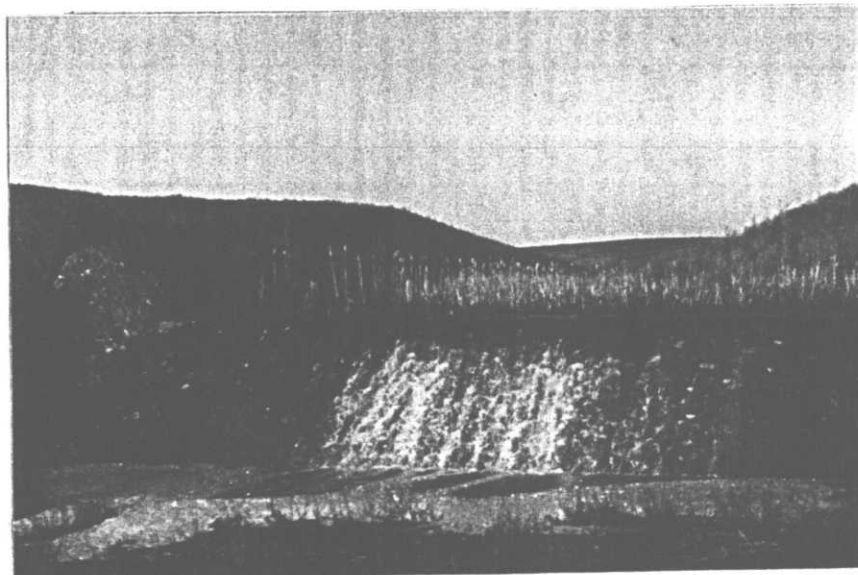
d. Facilities



Typical stock dam on the Des Lacs NWR

All existing dams and stockdams, as well as dug-outs were checked for run-off damage. However, no damage to any of these facilities was noted.



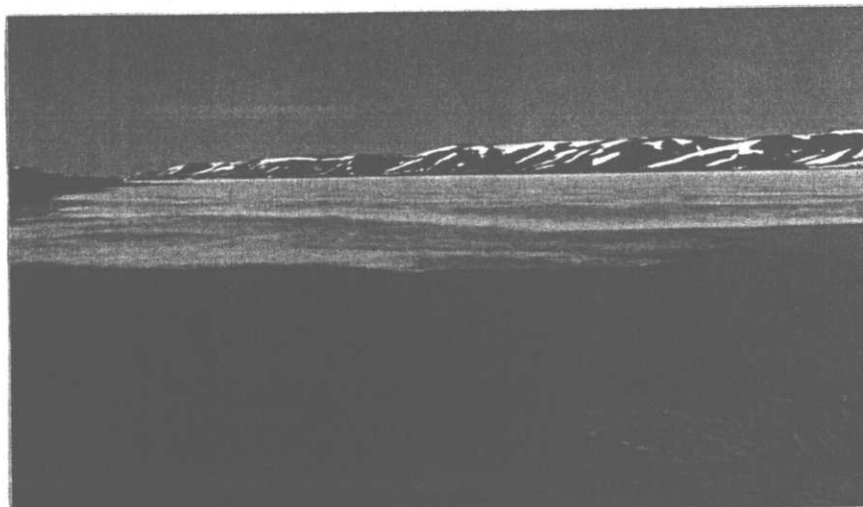


Old CCC Dam on Stony Creek

Maintenance, General

a. Water Facilities

The floods of 1969-1970 have made us very "water" conscious, so the first order of spring work was the thorough checking of all pool dams, dikes and controls. All gauges were checked and repaired as needed.



Spring breakup in Unit 7

The spring run-off proved quite normal for the second year in a row, and no problems were encountered. However, constant checks were made of all pool levels and incoming run-off during the peak periods. Some debris build up always occurs in the controls and requires a little back muscle and rake work.

b. Roads and Trails

Rebuilding of trails was continued this year with about  $3/4$  of a mile reconstructed on the west side, and north of the Highway 52 crossing. This section receives considerable use by birders traveling to our grouse observation blind. About another  $1\frac{1}{4}$  miles is scheduled to be rebuilt next year.

In addition a number of loads of gravel was hauled to scattered points on the trail system, where needed. All trails were graded several times during the year, and road-sides and trails mowed.

c. Fencing and Posting



Corner posting on refuge boundary fence

Refuge boundary markers and signs were checked and replaced as needed during the year. For the deer season in November, all closed area signs were checked, replaced, and additional signs put up as needed.

d. Buildings and Structures

1. Office Building

New linoleum was installed throughout the office building, and the back room was paneled, new light fixtures installed, and generally remodeled to serve as the managers office.

2. Residences

a. Managers Residence

A humidifier was installed on furnace, a combination storm-screen door was installed, and a complete remodeling of the bathroom was begun just before the end of the calendar year.



Wildlife of the Headquarter area

b. Mechanics Residence

Several screen and storm windows were repaired and/or replaced and a small iron filter unit installed in the water system.

c. Clerk Residence

A small humidifier unit on the furnace was replaced with a larger and more efficient unit.

3. Miscellaneous

a. Heating Systems

All heating units were checked and minor repair and adjustment made prior to the fall and winter seasons.

b. Water systems

We are experiencing some difficulty with the water filtration system at the headquarters well. The equipment is somewhat antiquated and requires constant attention. Our main problem is with iron in the water, and we are attempting to find a reasonably priced unit that will remove the iron. To date we have had little success.

We are also having an iron filtration problem with the well at the secondary headquarters. A small filter unit did somewhat relieve the problem.

c. Two-way Radio System

Our radio communication system is still a continual source of "blue air." We have experienced a continual series of problems with the control heads. Unbelievable as it may seem, any electrical storm within the area will knock out the control head, even though they are grounded internally and externally. Our regional engineering division contacted the motorola company regarding our problem. This proved to be of little help as our repair technician had already tried everything they suggested and then some. We have been without our control head since August, awaiting the arrival of parts from the factory.

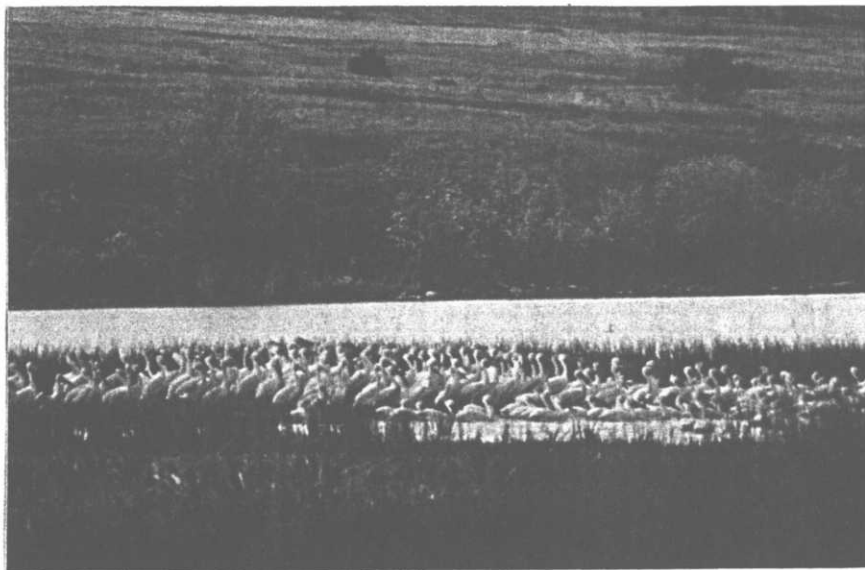
Our second hand radio system, which included a mobile unit, base station, and spare control head, which enables us to hook into the State Police radio system has been virtually trouble free, and was bought and set up for less than \$300.00. The spare control head is being used with the refuge system at the present time and is proving reliable even though nearly 15 years old.

d. Marsh and Water Management



Marsh area of Unit 7

Once again, as we have for the past several years, strips were cut in the heavy vegetation in units 3 and 6. The D-7 cat and the motor grader were used to "scalp" the vegetation. The cut off vegetation was then pushed into piles to make islands. The creation of these open areas was reflected in increased use of the areas. The islands received considerable use as "loafing spots" by all species of waterfowl and water and marsh birds, and occasional marsh mammals.



Pelicans on lower end of Unit 4

e. Law Enforcement

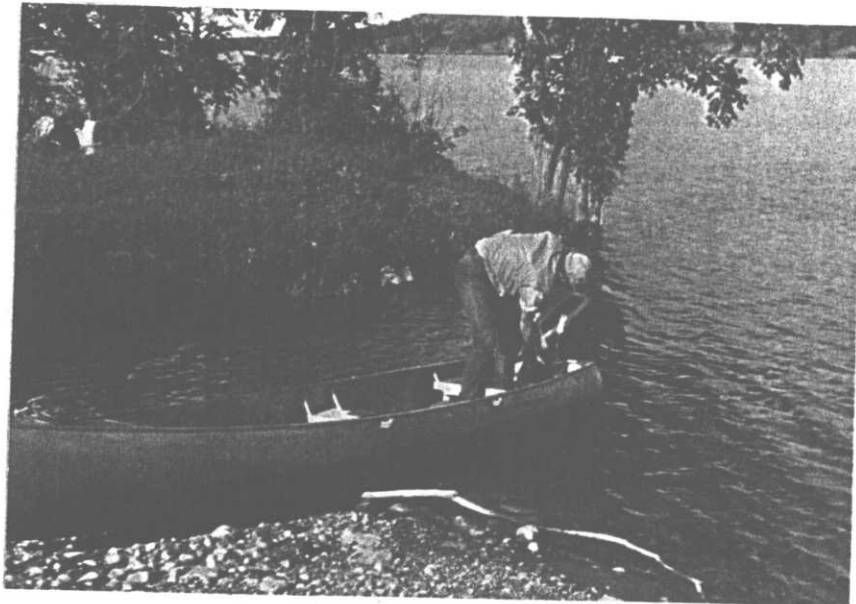
Three men spent full time on enforcement during the opening weekend of the deer season. The season was again a buck only, with does by special permit only. Hunter use was moderate the opening weekend, but below average for the past years. Because of the light use activity, only limited patrolling was done the latter part of the season.

Only a very limited amount of patrolling was done during the waterfowl season, generally because of only moderate hunting pressure.

f. Recreation

1. Boating Area

This lightly utilized area was open for public use from Memorial Day through Labor Day. Some time was spent in readying the area, putting up signs, setting out tables and trash barrels and etc.



Launching at the Boating area

This area was again operated under a cooperative agreement with the City of Kenmare Park Board, and they provided all maintenance and upkeep during the season.

Little use is made of this facility, except by those wanting to test a boat and motor, or an occasional canoe enthusiast.

## 2. Taskers Coulee

As usual, public use of this area was heavy. This is a favorite area for family picnics and outings, scout camporees and other gatherings of groups and clubs. Also a few "party" people use the area, fortunately however, they are a small minority. The area was operated by the City of Kenmare Park Board under a Cooperative Agreement with the Bureau, and, as usual the area was extremely well maintained.

## 3. Snowmobile Trail

The snowmobile trail was operated from January 1st, 1972 until snow conditions no longer warranted it. No problems were encountered with the users, perhaps because of the trail being only a couple of miles long, and also the trail was through a densely wooded area with no chance to wander off the trail. From a public relations standpoint the trail was a success.

This trail was closed this fall by the Bureau's decision to implement a new policy regarding the operation of snowmobile trails on refuges. This did cause a slump in public relations. We continue to look at snowmobiling with mixed emotions. When our trail was open to the public, at least we had the trail where "we wanted it", whereas it is possible that the public could force us to open the snowmobiling where we don't want it.

### g. Equipment

Periodical servicing, safety and 5000 mile inspections and general repair work was performed on the following units : 1 utility jeep; 4 pickups; 4 stake, fire and dump trucks; 1 truck tractor and flatbed; for and IHC tractors; D-4, D-7 and TD-24 crawler tractors; a motor grader and dragline.

Major repairs involved the following units.

TD-24 - All power controls were equipped with new cable, new master track pins installed and the radiator repaired.



No. 12 Grader - The generator unit was replaced with a new unit. This included new gears and block housing.

h. Miscellaneous

Several trips were made to the Lake Ilo Refuge, Dunn Center, North Dakota for inspection and administrative purposes as well as material and equipment transfers.

B. Plantings



South end of Unit 1

1. Aquatic and Marsh Plants - None
2. Trees and Shrubs - None
3. Upland Herbaceous Plants - Reported under S & M
4. Cultivated Crops

All farming was performed by cooperators on a share crop basis. The supply of moisture was excellent, in fact at times excessive, and did cause some delays in the fall harvest, which in turn contributed to a large number of depredation complaints.

A number of changes were made in crop strip arrangements on nearly all units, particularly the large unit containing as high as 30 separate strips. In most cases, narrow strips were combined to form slightly larger, but fewer crop strips. This also resulted in a decrease of acreages farmed and cropped.

We once again anticipated a depredations problem and planned to have all the refuges share of small grain left in the fields. Our share amounted to 44.8 acres were located in 5 separate farm units. An average yield of 28 bushels per acre, the refuges share of grain is estimated at 1255 bushels.

We definitely feel that our unharvested grain left in the fields did cut down, to some degree, the number of depredations on the area adjacent to the refuge.

### C. Collections and Receipts

#### 1. Seeds and Propagules

The following seed were purchased or received during the year:

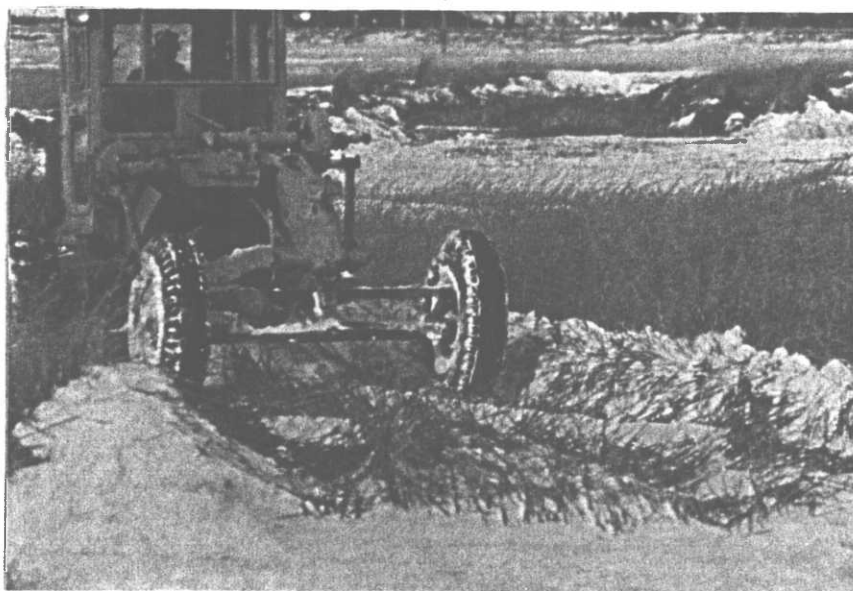
<u>Species</u>	<u>Amount</u>	<u>Source</u>	<u>Condition</u>
Yellow Clover	100#	Purchased	Good
Sender Wheatgrass	400#	Purchased	Good
Tall wheatgrass	80#	Purchased	Good
Switchgrass	50#	Purchased	Good
Side Oats	60#	Purchased	Good
Little Bluestem	40#	Purchased	Good
Western Wheatgrass	50#	Purchased	Good
Green Needle	50#	Purchased	Good
Blue Grama	30#	Purchased	Good
Big Bluestem	50#	Purchased	Good

#### 2. Specimens

No migratory birds or specimens were collected during the year.

D. Control of Vegetation

Use of herbicides is reported under Soil and Moisture and on the NR-12 form which appended to this report.



Grader cutting heavy vegetation

Control of heavy marsh vegetation was again undertaken in Units 3 and 6. When the marsh was frozen hard enough, a grader was used to "scalp" strip through the areas, and a D-7 was used to doze the vegetation into islands. The opening created did contribute to increased use, and the islands received heavy use as loafing areas, along with some nesting use.



Showing opening cut in marsh in Unit 6

E. Planned Burning

Our prescribed burning objective in 1972 was two-fold: (1) to evaluate vegetative response on areas previously seeded to "tame" grasses such as brome, blue grass and crested wheat grass and, (2) to test equipment, techniques and economics of burning as a management tool.

a. Burn No. 1

This 115 acre "go back" area was previous cropland - - retired in the mid 1950's. The area was seeded to a mixture of brome, crested wheat grass, alfalfa and sweet clover, however, brome and become the predominant cover.

An approximate 100 acre area was burned on June 1st during the period from 10:00 a.m. to 4:00 p.m. Maximum daytime temperature was 80 degrees. We backfired into a 5mph wind, which later increased to about 15mph by early afternoon. The fire burned slow and extremely hot despite considerable green vegetation.

We experienced a good clean burn on brome areas, but crested wheat, alfalfa and sweet clover burned rather poorly.

Total cost for burning the 100 acres was \$120.00, or \$1.20/ acre. We had four men on this first burn, but could have gotten by with three and further reduced costs.

Late summer observations seemed to indicate a marked response by alfalfa and sweet clover, although the brome showed good vigor and density in lower areas.

Based on the results from burning this tract, it would appear that if our intent is to increase both the quantity and quality of nesting habitat on "go back" tracts, we would probably be better off plowing and seeding to dense nesting cover. One year is obviously too soon for an objective evaluation, and further work needs to be done on these tracts.

Prior to burning, the 100 acre burn area was dragged for nests, but only one blue-winged teal nest was found despite the fact there was good breeding habitat in the surrounding area.

b. Burn No. 2 and 2A

Burn No. 2 was located along the refuge headquarters entrance road -- a previous grazing unit which was predominately blue grass, crested wheat grass with some interspersed areas of

brome. No. 2A was located just SW of headquarters and consisted primarily of alfalfa, sweet clover and blue grass. Each tract contained approximately 4 acres each.

Both areas were burned on June 2nd during the period from 9:30 a.m. to 3:30 p.m. High daytime temperature was again 80 degrees with little or no wind. Total cost for this small unit was about \$75.00, which points out the obvious fact that large tracts can be treated much more economically.

Burn No. 2 showing pre-burn condition in late May. A dense mat of both brome and blue grass. The mulch in this area was nearly 3" thick.

By early July a number of forbs such as purple prairie clover, silver-leaf psoralea and both purple and yellow cone flowers had begun to grow for the first time in many years. It was a rather dramatic example of how the prairie can respond following rejuvenation by fire. This tract, so far as we know, had never been broken, simply invaded by "tame" grasses.

Same area as above in mid August. We counted 14 different species of forbs in the burn area compared to only 4 in the control area.





Burn No. 2A following the June 2nd burn. Primarily an area of poor quality alfalfa and sweet clover, with interspersed areas of brome and blue grass.



The same area about mid August showing response by alfalfa and sweet clover.

### Problems

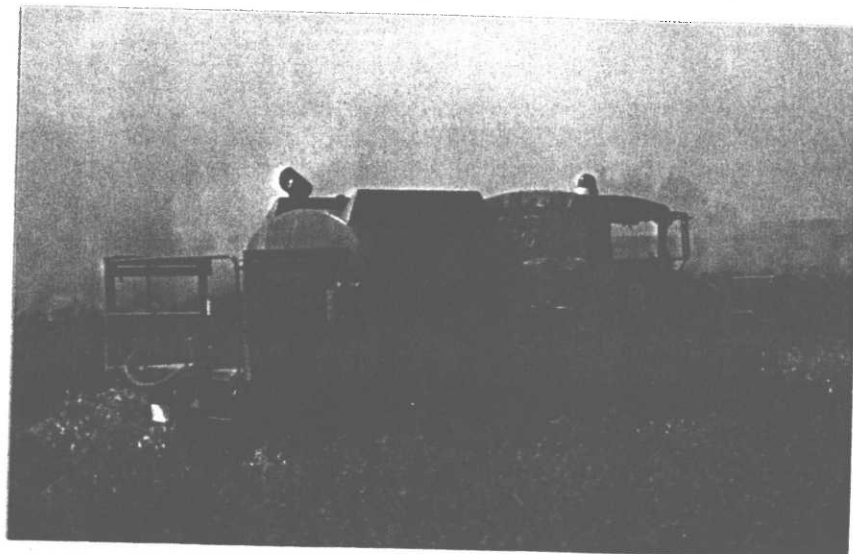
We received very little public criticism during our initial attempt at controlled burning despite the fact that one tract was directly across from the city of Kenmare. It was almost disheartening to learn that no one really cared whether we burned our refuge or not.

The only real problem we encountered was the 57KV power line we nearly burned in half. The line, owned by Burke-Divide Electric, crossed the 115 acre area of burn No. 1, and even though we checked each pole as the fire passed we were unable to follow this procedure in the center of the field due to excessive smoke. By the time the smoke had cleared, we noticed smoke coming from the base of the pole. In about a 30 minute period, the fire had eaten nearly half way into the pole.

The real significance of what might have happened had the pole fallen didn't hit home until I talked with an official from Burke-Divide. He advised me that we could have easily put nearly everyone out of power in NW North Dakota, plus over 100 underground Minuteman missile sites.

What a beautiful way to begin a controlled burning program!

### F. Wildfires



Refuge fire truck in action

Only one wildfire occurred on the refuge owned lands this year. On October 21st, at about 9 p.m., a fire broke out near refuge headquarters and rapidly spread around the buildings before being brought under control. The one containing factor which prevented serious results, was the still green and short clipped lawns, this served as a barrier to the fire. About 4 acres was burned, before being extinguished by refuge crews. When Manager Frates discovered the fire, one or more persons were seen along the shoreline where the fire started, therefore, our conclusion was that careless smoking on the part of one or more trespassers was the cause of the fire.

Our refuge fire unit aided the Kenmare Rural Fire Department on three occasions under the terms of our cooperative fire protection agreement. All of these fires were on land directly adjacent to the refuge.



#### IV . RESOURCE MANAGEMENT

##### A. Grazing

Fourteen grazing permits were issued this year with utilization amounting to 783.05 AUM'S on 3929 acres of pasture land. Total revenue from this source amounted to \$2491.93. Both total use and revenue was down slightly from last years figures. The grazing fee, which is geared to the price of beef cattle sold for slaughter, was \$3.19 per AUM, this was a 9¢ increase over the fee of \$3.10 charged in 1971.

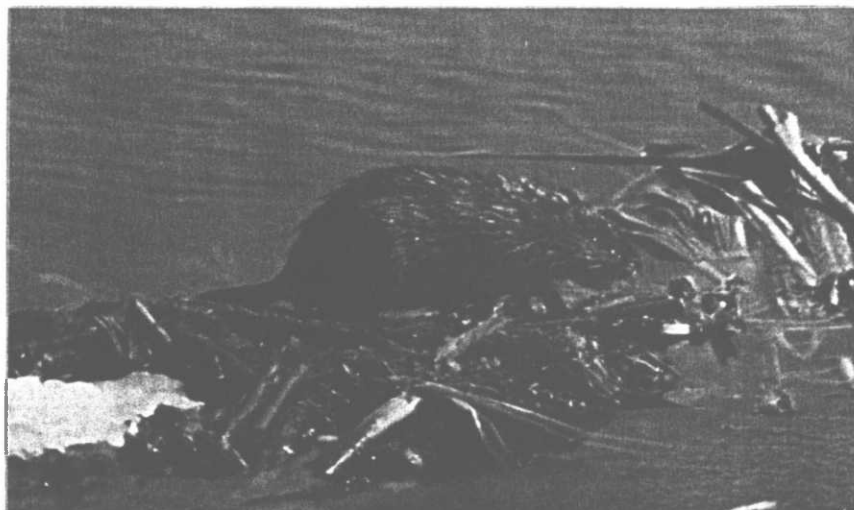
Forage conditions were good in all units during the entire grazing season. Excellent moisture conditions last fall and during the grazing season, plus low stocking rates enable us to keep our pasture land in top condition. Also for the first time in several years, no horses grazed in refuge pastures.

##### B. Haying

None.

##### C. Fur Harvest

Once again, our regular two trappers were the only two applications received for permits under the lottery system. So, again this year, we had reliable and experienced trappers doing the work. As we said in last years report, good trappers are, it appears, an "engangered species" themselves, at least in this area.



One of the modest muskrat population on the refuge

The following animals were taken during the season, November 10 through December 31, 1972.

<u>Species</u>	<u>Number taken</u>	<u>Ave. Price received</u>
Mink, male	48	\$40.00
Mink, female	37	\$15.00
Muskrat	26	\$ 1.75
Fox	27	\$23.00
Coon	12	\$13.50

The refuge shares only in mink, 25% going to the refuge and 75% to the trapper. 100% of all other furs go to the trapper. The refuge share this year totaled \$593.12.



Don't get any closer with that thing!

## V. FIELD INVESTIGATION AND APPLIED RESEARCH

### A. Sharp-tailed Grouse Study



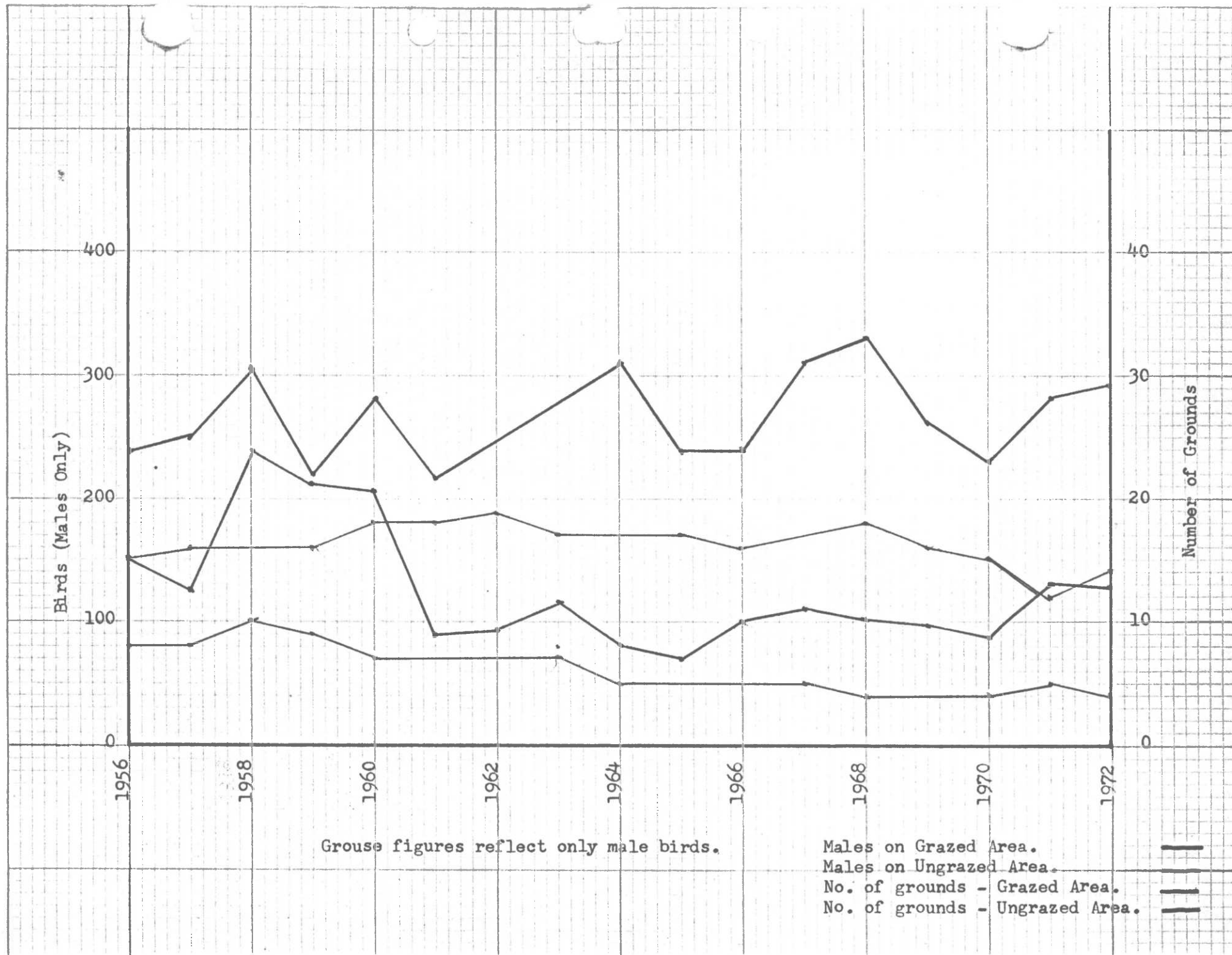
Two male sharp-tails "dancing"

A census of the dancing ground was again made this year to determine the population for the study program first initiated in 1954. Field work indicated 18 active grounds as compared to 16 last year. The average number of males per ground was 23.0 as compared to 25.0 last year. A total of 414 males were counted and used as a basis for projecting a breeding population of 828 birds. Production was estimated at 490 young, using all available data and brood figures. This brought the summer peak population up to an estimated 1318 birds. The end of the year population was estimated as 950 birds.

The graph on the following page is graphic representation of grouse populations on grazed vs. ungrazed areas of the Des Lacs Refuge for the period 1956-1972.

All dancing grounds, except two, lie above the Bowbells crossing at Highway 5. The east side of the refuge is essentially all grazed, while the west side is ungrazed except for one small area in the n.w. corner, adjacent to the Canadian border.

The data clearly shows a higher population on the grazed west side, as compared to the grazed east side. Once again the number of grounds on the grazed area decreased, while the number of grounds on the ungrazed area increased. However, the number of males on both areas increased slightly. Pure speculation leads one to believe grazing is a depressing factor on grouse populations, even though our study is not finite enough from which to draw a statistically reliable conclusion.



## VI. PUBLIC RELATIONS

### A. Recreational Use

#### 1. Taskers Coulee Recreational Area

Nearly all public use was confined to this area which has been in operation since the 1930's. This area is located in the bottom of a deep wooded coulee, but is not adjacent to water. A ball diamond, playground and picnic facilities are available. The area is maintained by the City of Kenmare Park Board under cooperative agreement, and they once again did their usual excellent job. It is estimated that somewhat over 9,000 people used the area, including a number of outings by various scouting units on camporees. Last years use was estimated at 7,000 people, considerably less than this years estimate.



Sample of the wild flowers found on the refuge

## 2. Boating Area

This area was again open for use and water conditions and levels were excellent during most of the use period. However, it is estimated that less than 100 people used the area during the season. The open area consists of a  $7\frac{1}{2}$  mile stretch of the Upper Lake, from 1 mile north of Dike # 2 to a point 2 miles south of the Bowbells Crossing.

## 3. Hunting

Hunting use of the refuge was limited to the State Deer Season, from 12 noon on November 10, through Sunset on November 19th. Again this year, it was a bucks only season with does by Special Unit III permit only.



Whoops! - Where did he come from?

Hunting use increased slightly this year, with an estimated 353 hunters visits as compared to 300 last year. A total of 64 deer were taken for an estimated hunter success of 18.1%. Once again this year a number of women were observed hunting deer. In one instance one gal was observed actually shooting a buck, and when approached, she was trying to talk her

husband into dressing the deer. His reply was "you shoot it, you might as well learn how to dress it." Finally after she had started, he winked at the writer and helped her finish the job. Both of these people were happy as could be, she to think she had gotten her deer, and I suspect he was pleased to see his wife enjoying and participating in a sport he had known for years. During the season no less than 6 women were noted hunting deer with their husbands, and sons in some cases.

#### 4. Winter Recreation Areas

The middle lake surface is open for winter use under cooperative agreement with Kenmare City Park Board. Use last winter consisted of snowmobiles, skates and etc. Use to date this year has consisted of only light use by a few snowmobiles. The light use is a result of the unusual lack of snow and unseasonably high temperatures which have alternated with record setting cold temperatures.

The Tasker Coulee snowmobile trail received considerable use from January 1st until closed. This trail was closed to further use as a result of a policy decision of the Bureau. Although this trail was less than 3 miles long, no problems were encountered during its use by the public.

#### 5. Miscellaneous

Several permits were issued to berry pickers again this year. When requested, permission was granted to individual and groups to hike and canoe various portions of the refuge.

#### B. Visitor List

The list of official visitors, and otherwise, is on file at the refuge office.



Young fox's give the photographer the eye



The mimeograph handout prepared and used last year was used again this year as a guide to visiting birders. These route and suggested viewing sites did much to clarify confusion on directions and etc.



Photographing wildlife

We were once again privileged to have a two week visit by Dr. and Mrs. Swarthchild. Dr. Swarthchild is the head of astronomy department of Princeton University. This was the second time in three years that this couple has visited our area.



A duck, unconcerned coyote, and a sharptailed grouse

#### C. Refuge Participation

Manager Frates attended and participated in all Kenmare Jaycee meetings and activities. This past year he served as president of the local chapter. He also received the Chapters Distinguished Service Award for 1972.

Clerk Lindberg is a member of the Kenmare American Legion Post and is also active and serving as Secretary of the Seventh Calvary Association of Kenmare.

Mr. Richwalski is a member of the American Legion and participated in league bowling during the year.

Mr. Felch is a member of the American Legion, the Kenmare Diving Club and the Kenmare Fire Department.

Rather than list all individual activities, we are listing only those of importance as worthy of individual note.

A total of 30 slide talks were presented to various organizations throughout western North Dakota by Manager Frates. This included presentation at three separate District meetings of the North Dakota Homemakers Clubs at Crosby, Bottineau and Harvey North Dakota on October 25, 26 and 27 respectively. A number of tours were given to various school groups by Manager Frates and Clerk Lindberg.

Jim Frates also served as president of the Kenmare Bird Club, and served as MC for the Audubon Wildlife Films.



Burke Central High School tours the refuge

On May 13th, a tour of the refuge and a Netting and Banding Demonstration was conducted for members of the Ornithology Class at Minot State College. Clerk Lindberg and Allen Aufforth of the Lostwood Refuge conducted the tour, while the banding demonstrations were done by Mrs. R. T. Gammel of Kenmare.

On August 2nd Clerk Lindberg presented a talk on local Indian history to a large group of Girl Scouts.

On August 19th, 109 persons, bureau employees and their families, attended a picnic at the Taskers Coulee Recreational Area.

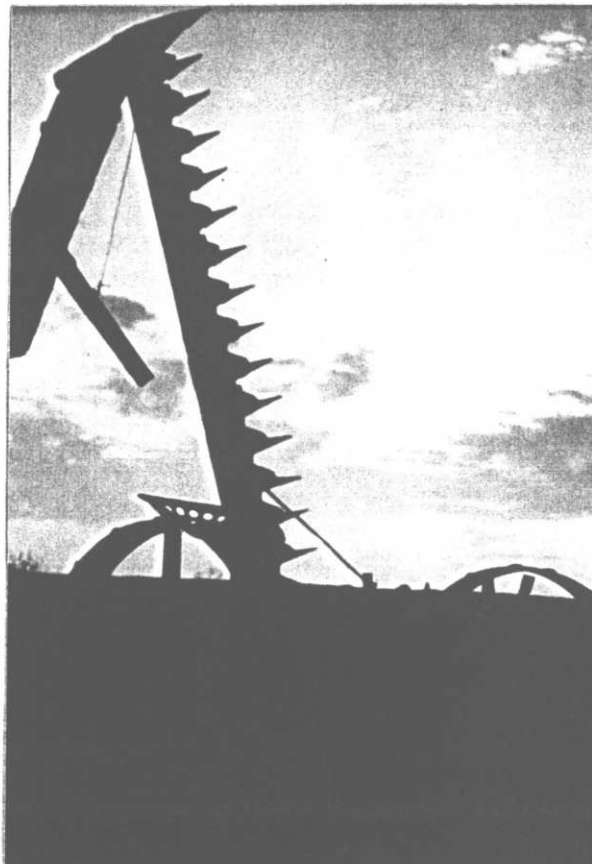
#### D. Hunting

Deer hunting was again permitted on the refuge during the state wide season. The entire refuge, with exception of a "Closed Area" around the buildings and the City of Kenmare, was open for hunting. The season was for  $9\frac{1}{2}$  days and it is estimated that 353 hunters used the area with a total take of 64 deer.

#### E. Violations

No apprehensions were made during the year, however, several warnings were made. This is not to say that no violations occurred, most likely they did, we just weren't there. Most warnings given during the deer season, reminders to wear caps, and etc. In these cases the person was ordered to leave the refuge and secure the correct clothing or cap before again entering the refuge to hunt. Nearly all of those warned either had a cap in their pocket or had left it in their vehicle.

#### F. Safety



All personnel participated in Safety discussions and job safety planning during our weekly Monday morning get-togethers. This has proven to be more satisfactory than the monthly safety meeting. We supplement these meetings with file and etc. as they become available to us. Subjects covered included fire fighting equipment, driving safety, shop safety, field safety and first aid to mention only a few.

Quarterly fire hazard inspections were made as required and are on file. All buildings, residences and heating systems were checked and repaired as needed. All fire fighting equipment is checked periodically.

No lost time accident occurred during the period and our record now stands at 4319 days without a lost time accident.

As an added note of interest, during the first part of January, a pressure ridge appeared in the ice of the middle lake. This is the area that is open for winter sport activity. The ice suddenly broke open, one evening about 4:30 P.M.. This was noted and checked and a concentrated effort made via radio and T.V., to warn the public that the area was being closed immediately because of the unsafe condition of the ice. This situation was given full cooperation and immediate coverage by the local area radio and T.V. stations and by 6P.M. notices were being given on all medias. What could have been a serious situation, had the open water gone unnoticed, was averted.

## VII. OTHER ITEMS

### A. Items of Interest

#### Personnel

Arlene R. Neuman joined our staff on November 15, of 1971 in a part time capacity. She was a Senior at the Kenmare High School and worked at the refuge under the schools "Student Learner Program." Arlene worked two hours a day until she resigned on June 16, 1972 to enter a business college.

On October 24, Debra Norrie joined our staff under the same program. Debra is a most welcome addition to the staff, and has proven to be of much help in the office.

During the summer months three young men were employed in a YOC Capacity. They were Daniel Schultz, Marty Jorgensen and Mike Jones. Dan worked on the grounds and building and Mike and Marty worked in the field most of the time, on nest searching, censuses and etc., all of these young people more than proved their willingness to work and to accept responsibility for job assignment.

#### Kenmare Diamond Jubilee

The City of Kenmare held its 75th Anniversary Celebration on June 22, 23, 24 and 25. Although the refuge did not participate as a unit, all staff members were involved in one way or another with various activities carried on during the festivities.

Manager Frates was the Master of Ceremonys for parades held on the 23 and 24, as well as participating in all of the Jay Cee functions held during these days. Clerk Lindberg was Co-Chairman of the livestock and parade committee for the second days parade. The 7th Cavalry Association "Troopers," of which Lindberg is the Commander, led the parade on the 24. He was also part of the group which sponsored and operated a horse show on the afternoon of the 24th.

Several thousand people visited Kenmare during this anniversary celebration and many visited headquarters and made heavy use of the Taskers Coulee Recreational Area for various school and family reunions.

A book of the history of the Kenmare Area was published. This book contained two articles written by Clerk Lindberg, one on the history of the refuge and one on the CCC's. Both of these articles were, by reason of restricted space, short and covered only lightly both subjects. Cops of these articles are attached at the end of this report.

#### American Birding Association Convention

Planning was begun several months ago in conjunction with Dr. and Mrs. Robert Gammell of Kenmare for the first annual convention of the American Birding Association. This association has elected to hold their first convention in Kenmare which we feel is quite an honor for the refuge and the community.

We are looking for several hundred birders from across the United States and Canada -- with several "Blue Chip" ornithologists scheduled to be present, including Roger Tory Peterson, Chandler Robbins, James Tucker and ABA president Stuart Keith with the American Museum of Natural History. The convention is slated for June 14th-17th.

SIGNATURE PAGE

Submitted by:

\_\_\_\_\_  
(Signature)

Date: \_\_\_\_\_

\_\_\_\_\_  
Title

Approved, Regional Office:

Date: \_\_\_\_\_

\_\_\_\_\_  
(Signature)

Regional Refuge Supervisor



3-1750b  
Form NR-1B  
(Rev. Nov. 1957)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE  
BUREAU OF SPORT FISHERIES AND WILDLIFE

WATERFOWL UTILIZATION OF REFUGE HABITAT

Refuge Des Lacs NWR For 12-month period ending August 31, 1972

Reported by James E. Frates Title Refuge Manager

(1) Area or Unit Designation	(2) Habitat			(3) Use-days	(4) Breeding Population	(5) Production
	Type	Acreage				
Unit 1	Crops	463	Ducks	855,000	652	2398
	Upland	9,048	Geese	41,000	0	0
	Marsh	10	Swans	0	0	0
	Water	1,700	Coots	38,330	10	30
	Total	11,221	Total	934,330	662	2428
Unit 2	Crops	124	Ducks	70,950	37	141
	Upland	301	Geese	0	0	0
	Marsh	70	Swans	0	0	0
	Water	65	Coots	20,945	0	0
	Total	560	Total	91,895	37	141
Unit 3	Crops	0	Ducks	25,800	8	31
	Upland	276	Geese	0	0	0
	Marsh	24	Swans	0	0	0
	Water	20	Coots	6,445	0	0
	Total	320	Total	32,245	8	31
Unit 4	Crops	49	Ducks	180,600	45	168
	Upland	476	Geese	0	0	0
	Marsh	10	Swans	2,500	0	0
	Water	705	Coots	43,503	10	21
	Total	1240	Total	249,103	55	189
Unit 5	Crops	0	Ducks	58,050	110	410
	Upland	702	Geese	0	0	0
	Marsh	115	Swans	0	0	0
	Water	43	Coots	12,890	12	23
	Total	860	Total	70,940	122	433
Unit 6	Crops	0	Ducks	190,500	80	298
	Upland	441	Geese	0	0	0
	Marsh	135	Swans	0	0	0
	Water	104	Coots	46,725	66	133
	Total	680	Total	237,225	146	431
Unit 7	Crops	0	Ducks	90,300	48	182
	Upland	463	Geese	0	0	0
	Marsh	61	Swans	0	0	0
	Water	353	Coots	19,335	12	23
	Total	880	Total	109,635	60	205

(over)

3-1750b  
Form NR-1B  
(Rev. Nov. 1957)

UNITED STATES  
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BUREAU OF SPORT FISHERIES AND WILDLIFE

WATERFOWL UTILIZATION OF REFUGE HABITAT

Refuge Des Lacs NWR

For 12-month period ending August 31, 1972

Reported by James E. Frates

Title Refuge Manager

(1)	(2)		(3)	(4)	(5)	
Area or Unit	Habitat			Breeding		
Designation	Type	Acreage	Use-days	Population	Production	
Unit 6	Crops	0	Ducks	25,800	38	140
	Upland	8	Geese	0	0	0
	Marsh	72	Swans	0	0	0
	Water	40	Coots	11,278	0	0
	Total	120	Total	37,078	38	140
-----						
GRAND TOTAL ALL UNITS	Crops	636	Ducks	1,500,000	1018	3794
	Upland	11,715	Geese	41,000	0	0
	Marsh	500	Swans	2,500	0	0
	Water	6,030	Coots	294,830	110	230
	Total	18,881	Total	1,838,330	1128	4024
-----						
	Crops		Ducks			
	Upland		Geese			
	Marsh		Swans			
	Water		Coots			
	Total		Total			
-----						
	Crops		Ducks			
	Upland		Geese			
	Marsh		Swans			
	Water		Coots			
	Total		Total			
-----						
	Crops		Ducks			
	Upland		Geese			
	Marsh		Swans			
	Water		Coots			
	Total		Total			
-----						
	Crops		Ducks			
	Upland		Geese			
	Marsh		Swans			
	Water		Coots			
	Total		Total			

(over)

3-1755

Form NR-  
60701

ASE

Refuge Des Lacs NWRYear 19 72

## Botulism

## Lead Poisoning or other Disease

Period of outbreak None

Period of heaviest losses \_\_\_\_\_

## Losses:

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

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

(a) Waterfowl	_____	_____
(b) Shorebirds	_____	_____
(c) Other	_____	_____

Areas affected (location and approximate acreage) \_\_\_\_\_

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

Condition of vegetation and invertebrate life \_\_\_\_\_

Remarks \_\_\_\_\_

Kind of disease None

Species affected \_\_\_\_\_

Number Affected Species	Actual Count	Estimated
_____	_____	_____
_____	_____	_____
_____	_____	_____

Number Recovered \_\_\_\_\_

Number lost \_\_\_\_\_

Source of infection \_\_\_\_\_

Water conditions \_\_\_\_\_

Food conditions \_\_\_\_\_

Remarks \_\_\_\_\_

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orm NR-7  
Rev. June 1960)

# NONAGRICULTURAL COLLECTIONS, RECEIPTS, AND PLANTINGS

(1)

Refuge Des Lacs NWR

Year 1972

Species	Collections and Receipts (Seeds, rootstocks, trees, shrubs)						Plantings (Marsh - Aquatic - Upland)						
	Amount (Lbs., bus., etc.)	(2) C or R	Date	Method or Source	Cost	(3) Total Amount on Hand	Location of Area Planted	Rate of Seeding or Planting	Amount Planted (Acres or Yards of Shoreline)	Amount and Nature of Propagules	Date	Survival	Cause of Loss
Yellow Clover	100#	R	4/72	Purchase	\$18.	100#	Unit A-4,	0.5#/Ac.	42.3 Ac.	95#	May and June	Unknown until spring	
Sl. Wheatgrass	400#	R	4/72	Purchase	\$100.	405#	field 5 - 20	on all					
Tall WheatGr.	80#	R	4/72	"	\$26.	80#	acres.	units.					
Switchgrass	50#	R	4/72	"	\$38.	26#				24#			
Side Oats	60#	R	4/72	"	\$93.	46#	Unit A-6,			24#			
Lt. Bluestem	40#	R	4/72	"	\$29.	0	field 7 - 11.			40#			
W. Wheatgrass	50#	R	4/72	"	\$31.	26#	3 acres.			24#			
Green Needle	50#	R	4/72	"	\$52.	0				50#			
Blue Gramma	30#	R	4/72	"	\$28.	6#	Unit A-7,			24#			
Big Bluestem	50#	R	4/72	"	\$94.	50#	field 18, 11						
							acres						

- Report agronomic farm crops on Form NR-8
- C = Collections and R = Receipts
- Use "S" to denote surplus

Remarks:

total acreage planted:

Marsh and aquatic \_\_\_\_\_  
Hedgerows, cover patches \_\_\_\_\_  
Food strips, food patches \_\_\_\_\_  
Forest plantings \_\_\_\_\_  
Totalated Croplands 42.3 Acres

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3-1758  
Form NR-8  
(Rev. Jan. 1956)

Fish and Wildlife Service Branch of Wildlife Refuges

CULTIVATED CROPS - HAYING - GRAZING

Refuge Des Lacs NWR County Burke State North Dakota

Cultivated Crops Grown	Permittee's Share Harvested		Government's Share or Return				Total Acreage Planted	Green Manure, Cover and Water- fowl Browsing Crops Type and Kind	Total Acreage
	Acres	Bu./Tons	Harvested		Unharvested				
			Acres	Bu./Tons	Acres	Bu./Tons			
Wheat	99.7	2493 Bu.			40.8	1020 Bu.	140.5 Ac.		140.5 Ac.
								Fallow Ag. Land	197.4 Ac.

No. of Permittees: Agricultural Operations 5 Haying Operations 0 Grazing Operations 5

Hay - Improved (Specify Kind)	Tons Harvested	Acres	Cash Revenue	GRAZING	Number Animals	AUM'S	Cash Revenue	ACREAGE
				1. Cattle	154	451.39	\$1139.94	2537 Ac.
				2. Other				
				1. Total Refuge Acreage Under Cultivation				337.9 Ac.
Hay - Wild				2. Acreage Cultivated as Service Operation				0

3-1758  
Form NR-8  
(Rev. Jan. 1956)

Fish and Wildlife Service Branch of Wildlife Refuge

CULTIVATED CROPS - HAYING - GRAZING

Refuge Des Lacs NWR

County Ward

State North Dakota

Cultivated Crops Grown	Permittee's Share Harvested		Government's Share or Return				Total Acreage Planted	Green Manure, Cover and Water- fowl Browsing Crops Type and Kind	Total Acreage
	Acres	Bu./Tons	Harvested		Unharvested				
			Acres	Bu./Tons	Acres	Bu./Tons			
Wheat	46.0	1150 Bu.			4.0	100 Bu.	50 Ac.	42 Acres seeded to cover crops in spring of 1972 as part of the 4-5 year rotation system of crop- lands.	50.0 Ac.
								Fallow Ag. Land	49.1 Ac.

No. of Permittees: Agricultural Operations 2 Haying Operations 0 Grazing Operations 9

Hay - Improved (Specify Kind)	Tons Harvested	Acres	Cash Revenue	GRAZING	Number Animals	AUM'S	Cash Revenue	ACREAGE
				1. Cattle	136	331.66	\$1051.99	1392.4
				2. Other				
				1. Total Refuge Acreage Under Cultivation				3931Ac.
Hay - Wild				2. Acreage Cultivated as Service Operation				0

## REFUGE GRAIN REPORT

Refuge Des Lacs NWRMonths of Jan. 1 through Dec. 31, 1957

(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
Wheat, Barley Mixed	122 Bu.	0	122 Bu.	0	0	15 Bu.	15 Bu.	107 Bu.		107 Bu.	
Corn, Ear	6 Bu.	0	6 Bu.	0	0	2 Bu.	2 Bu.	4 Bu.		4 Bu.	
Yellow Clover	0	100#	100#	0	0	0	0	100#	100#		
Slender Wheatgrass	0	400#	400#	0	95#	0	95#	305#	305#		
Tall Wheatgrass	0	80#	80#	0	0	0	0	80#	80#		
Switchgrass	0	50#	50#	0	24#	0	24#	26#	26#		
Side Oats	0	60#	60#	0	24#	0	24#	36#	36#		
Little Bluestem	0	40#	40#	0	40#	0	40#	0			
Wes. Wheatgrass	0	50#	50#	0	24#	0	24#	24#	26#		
Green Needle	0	50#	50#	0	50#	0	50#	0			
Blue Gramma	0	30#	30#	0	24#	0	24#	6#	6#		
Big Bluestem	0	50#	50#	0	0	0	0	50#	50#		

(8) Indicate shipping or collection points \_\_\_\_\_

(9) Grain is stored at steel grainary at secondary HQ.

(10) Remarks \_\_\_\_\_

\*See instructions on back.

ANNUAL REPORT OF PESTICIDE APPLICATION

Refuge

Des LacsNWR

Proposal Number

Reporting Year

72 WGP 4

72

INSTRUCTIONS: Wildlife Refuge Manual, secs. 3252d, 3324b and 3395.

Date(s) of Application	List of Target Pest(s)	Location of Area Treated	Total Acres Treated	Chemical(s) Used	Total Amount of Chemical Applied	Application Rate	Carrier and Rate	Method of Application
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Canada Thistle	Various locations on retired cropland.						
		THIS TREATMENT NOT CARRIED OUT THIS YEAR.						

10. Summary of results (continue on reverse side, if necessary)



ANNUAL REPORT OF PESTICIDE APPLICATION

Des Lacs NWR

Proposal Number

Reporting Year

72 WGP 3

1972

INSTRUCTIONS: Wildlife Refuges Manual, secs. 3252d, 3394b and 3395.

Date(s) of Application	List of Target Pest(s)	Location of Area Treated	Total Acres Treated	Chemical(s) Used	Total Amount of Chemical Applied	Application Rate	Carrier and Rate	Method of Application
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7/7-25	Leafy spurge	various locations on idle grasslands in Burke & Ward County portions of the refuge.	4.4	Picloram 24.9%	4.4#	1# a.e./ac.	Water 1:200	Power Sprayer

10. Summary of results (continue on reverse side, if necessary)

<u>Material</u>	<u>Labor</u>	<u>Equipment</u>	<u>Total</u>	<u>Per Ac.</u>	<u>% Kill</u>	<u>Obs. Date</u>
75.00	600.00	100.00	775.00	17.60	80%	July & Aug.

First rainfall 8/26-28 -.17"

9-1979 (NR-12)  
(9/63)

Bureau of Sport Fisheries and Wildlife

Refuge

Des Lacs NWR

ANNUAL REPORT OF PESTICIDE APPLICATION

Proposal Number

Reporting Year

72 WGP 2

1972

INSTRUCTIONS: Wildlife Refuges Manual, secs. 3252d, 3394b and 3395.

Date(s) of Application	List of Target Pest(s)	Location of Area Treated	Total Acres Treated	Chemical(s) Used	Total Amount of Chemical Applied	Application Rate	Carrier and Rate	Method of Application
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Leafy Spurge	various grazing lands and retired croplands.						
		THIS PROPOSAL WAS NOT CARRIED OUT THIS YEAR						

10. Summary of results (continue on reverse side, if necessary)

3-1979 (NR-12)  
(9/63)

Bureau of Sport Fisheries and Wildlife

ANNUAL REPORT OF PESTICIDE APPLICATION

Refuge

Des Lacs NWR

Proposal Number

Reporting Year

72 WGP 1

1972

INSTRUCTIONS: Wildlife Refuges Manual, secs. 3252d, 3394b and 3395.

Date(s) of Application	List of Target Pest(s)	Location of Area Treated	Total Acres Treated	Chemical(s) Used	Total Amount of Chemical Applied	Application Rate	Carrier and Rate	Method of Application
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
June	Wild buckwheat Russian Thistle Wild mustard Wild sunflower Common ragweed	Ag. Units, A-1,2, 4,5,6,7 and 11.	204	2,4-D Low Vol- atile ester farm dimethylene salts	51#	.25# a.e./Ac.	Water 1:80	Power Sprayer

10. Summary of results (continue on reverse side, if necessary)

First Rainfall - July 8 - .10"

<u>Material</u>	<u>Labor</u>	<u>Equipment</u>	<u>Total</u>	<u>Per Ac.</u>	<u>%Kill</u>	<u>Obs. Date</u>
50.00	70.00	33.00	153.00	.74	90%	July



## FOREWORD . . .

"Seventy-Five Years of Kenmare and The Gooseneck Area" contains histories and pictures of the life of the first, second and third generations of people in this area. The fourth generation is now growing to adulthood and their connection with the origin of the country is severed by the passing of time.

This booklet strives to preserve a portion of the life of the homesteader and the very first settlement of Kenmare and surrounding towns and townships. Pictures are invaluable as records of many events and places. Even those who recall the homestead days, have forgotten much of the history of the land.

Towns such as Patterson, Paisley, Barber, Edson, McKinney, Spiral, Baden, Galva and Aurilia are completely gone and only a faint memory of them remains in the thoughts of our pioneers. Another decade or two and pictures of these towns will be the only document of their being.

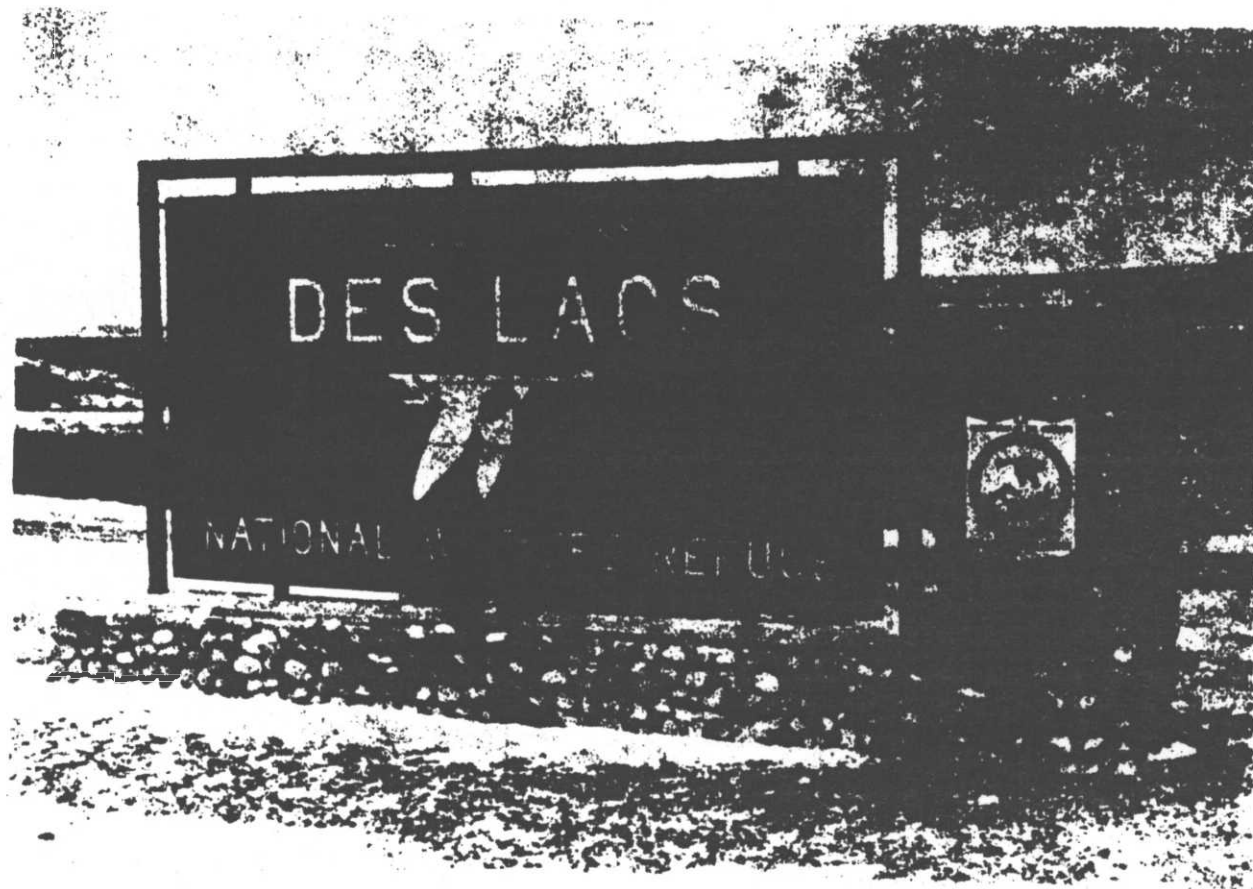
Compiling material for this booklet has been a very interesting and rewarding job and although we started nearly a year ago, much more time could have been spent searching for histories and collecting photos. This booklet is not intended to serve as an official documentary of events, dates and places, and several discrepancies have already been noted. Much of the information was taken from memories of those who lived through the first seventy-five years of this country.

We are grateful to the many people who supplied us with pictures and information, and those who worked to compile histories. Without their help this booklet would have been impossible to compile.

It is our wish that these pages will help preserve the memory of the first seventy-five years of this area and serve as an inspiration to those who will live and work here the next seventy-five years.

THE PUBLISHERS

## DES LACS NATIONAL WILDLIFE REFUGE



The Des Lacs Refuge is comprised of 18,881 acres, which historically was at one time the home of the buffalo, the plains grizzly, the prairie wolf, to mention only a few. The area was one of the finest waterfowl breeding grounds in the United States. Historical records indicate that many plains Indians made forays into the area to hunt waterfowl and big game. The last Indian Tribe to actively use the area were the southern Assiniboins during the latter part of the nineteenth century.

Following the coming of the settlers, ranches and the founding of towns such as Kenmare, the Des Lacs River had sufficient water to support commercial barge traffic. Cargos included the hauling of wheat down stream and cargos of lignite coal northward into Canada. The coal was mined in various coal mines located along the Des Lacs Valley.

During the 1930's the Des Lacs River water levels receded until only a few shallow pools and puddles remained. During the drought, hundreds of wagon loads of buffalo bones and skulls were picked up on the exposed river bottom, hauled to Kenmare, and shipped out to various fertilizer manufacturers. Because the area had been one of the most important waterfowl production areas in the northern plains, President Franklin Roosevelt signed a presidential executive order, on August 22, 1935, creating the Des Lacs Migratory Waterfowl Refuge. This was but one of four such refuges to be located on what is known as the Souris Loop, the others being the Lostwood Refuge, the Upper Souris Refuge and the J. Clark Salyer Refuge. The Des Lacs Refuge was placed under the control of the Bureau of Sport Fisheries and Wildlife. The primary objectives of the newly established refuge was the restoration, development and preservation of migratory waterfowl habitat.

The actual building of the refuge facilities got underway in 1935, when the CCC Camp was established in Kenmare. This company of about 200 men was responsible for all of the early development and construction of all of the major facilities of the refuge, such as roads, trails, dikes and buildings. In order to actively restore and develop the water resources of the Des Lacs River, a series of eight low dikes and controls was constructed. The purpose of these, being to permit the manipulation of water levels, which is all important in maintaining optimum nesting conditions and food production for waterfowl.





Synonymous with the early development of the Des Lacs Refuge are names such as John H. Stenis, Seth H. Low, Frank Van Kent, Erich B. Lawson, and Melvin McKenzie, to mention only a few of the early managers. These men guided the early development of the refuge facilities and biological programs. To these men must be given much credit for making the refuge what it is today--one of the more important refuges in the northern reaches of the central flyway.

During the spring and fall migrations, the refuge marshes and pools serve as important resting and feeding areas for thousands of ducks and other migratory birds. The heaviest migrant use usually occurring in April and then

again in September and early October. The area also is a prime nesting area for many resident waterfowl, with annual production of young ducks averaging from 5,000 to 7,000 birds. Principal nesting species include the mallard, pintail, gadwall, blue-winged teal, American widegon, canvasback, redhead, ruddy duck and scaup.

Many other species of wildlife benefit from the refuge operations. Management of upland grass areas has resulted in an excellent sharp-tailed grouse population. These birds provide many hours of recreational enjoyment for ornithologists and photographers during their spring courtship displays. The gray partridge and ring-necked pheasant are also present in varying numbers.

The preservation of wooded coulees has provided habitat for a sizeable herd of white-tailed deer, as well as an occasional mule deer. Mink, muskrats, weasel and other furbearing animals also utilize the marsh areas for homesites.

In addition, the refuge is host to a total of 262 different species of birds. Several species present in the area are considered such worthy specimens that many amateur ornithologists travel hundreds of miles, from all over the United States and Canada, just to see them during the summer months. A western grebe colony of considerable size is present and is another prime attraction to visitors because of their distinctive courtship antics. These birds have been the subject of many visiting photographer, both amateur and professional.



The refuge is also the site of one of the more beautiful recreational areas in this portion of the

state. The Tasker's Coulee area was established in the late 1930's when construction was begun by the CCC's and has continued to be expanded. Each year from 7,000 to 9,000 people utilize the area for picnicking, and gatherings. In addition, the refuge is host to many visiting birders, photographers, sightseers, college and high school groups, etc., which brings the average annual visitors total to 11,000 people.



During the course of recent years, several public use areas have been considerably improved. The Tasker's Coulee area was en-



larged and a new and modern comfort station constructed. Several years ago a portion of the Upper Lake was opened for boating use. This involved the building of launching facilities, as well as several picnic areas. In 1971 a new comfort station was also constructed at this site.

Two of the most disastrous years in the refuges history of operation were in 1969 and 1970. These were the years of unusually high flood waters. During the time the refuge played a part in preventing further and more extensive flooding further down the Des Lacs Valley. During these periods, all refuge pools were filled to capacity which resulted in severe damage to refuge facilities, roads and trails and dikes, but thousands of acre feet of water was held which otherwise would have added to the already flooded areas to the south. In 1970 an extensive repair program was undertaken to restore the damaged areas caused by two years of flooding.



The men whose names are listed here, are the past managers of the Des Lacs Refuge, and have played major parts in its history:

John H. Stennis 1934-1939; Seth H. Low 1939-1941; Frank Van Kent 1941-1942; Melvin H. McKenzie 1942-1944; Robley W. Hunt 1944-1945; Bartlett W. Foster 1945-1946; Robley W. Hunt 1946; Forest A. Carpenter 1946-1948; Carl V. Fermanich 1948-1950; Claude R. Alexander 1950-1951; Howard S. Huenecke 1951-1956; Edward J. Smith 1956-1958; Homer L. Bradley 1958-1970.

Currently serving as refuge manager is James E. Frates. Other personnel at the refuge are Donald E. Lindberg, Clerk; Elmer M. Richwalski, mechanic; and Gerald Felch, maintenance man.

The future of the Des Lacs Refuge lies in the premise that we must preserve some form of natural beauty and wildlife for future generations to see and enjoy.

## KENMARE'S "SAM G. ANDERSON" C.C.C. CAMP

(The following article was compiled from records of the Des Lacs National Wildlife Refuge)

From July 1935 through May 1942, Kenmare was the home of Camp "Sam G. Anderson", 797th Company of the Civilian Conservation Corp.

Company 797 of the CCC's was organized at Fort Lincoln, North Dakota on May 25, 1933 under command of Captain Crissy. The company remained at Fort Lincoln for five weeks for conditioning and adaptation to the life of the CCC's. The company then moved to Jamestown, N. D. where construction of ten rock dams and one timber dam was undertaken on the James River. On August 1st, 1933 Captain Crissy turned over command of the company to Captain Sullivan. On October 1st, 1933 Captain Sullivan was succeeded by Captain C. J. Bakken, who remained in command until Dec. 12, 1937.



On October 18, 1933 the company moved to Westfork, Arkansas where they participated in the construction and development of the Devils Den State Park in the Ozark Mountains. On April 29, 1934, the unit again moved, this time back to Watford City, N. D. Here the company replenished its strength with new recruits and much work was done in the way of constructing rock dams in the vicinity. Many of these dams still stand in the vicinity of Watford City. Company 797 also established a sub-camp at Killdeer, N. D. during this period of time.

Once again the wanderings of Company 797 continued with a move on Oct. 15, 1934 to Stokes Camp, F-35, Bigfork, Minnesota. While at this camp the company spent 8 months in forestry work in the Chippewa National Forest.

Orders came again to the company to return to North Dakota. So on June 25, 1935, the company found itself temporarily posted at Foxholm, N. D. with Company 796. The company remained at Foxholm until the middle of July when Company 797's new home at Kenmare was occupied. Work at once was undertaken to develop the Des Lacs and Lostwood Migratory Waterfowl Refuges, under the direction of the Bureau of Biological Survey, now known as the Bureau of Sport Fisheries and Wildlife. While at Kenmare, Dr. D. J. Halliday served as contract surgeon to the men of Company 797.

On April 17, 1937, Company 797 held an open house for the public in honor of their 4th anniversary, and a news release of April 14, 1937 lists some of the accomplishments of the company during their slightly less than two years at Kenmare. They had constructed 7 combination buildings, two equipment and storage buildings, one garage, two lookout towers, 11 diversion dams and they also dismantled and salvaged materials from 59 buildings on the refuge. They had constructed slightly over 26,000 rods of fences and built 38 miles of roads and trails, with 14 miles of terracing also done. They had also completed 6,000 square yards of riprap, 31,520 square yards of grading and sloping, marked 290 miles of refuge boundaries and initiated weed control on 921 acres of land.

The men of Company 797 not only worked, but also took advantage of opportunities to learn trades and continue their education. Courses and classroom instruction were available in many areas of interest. The company also enjoyed an excellent reputation for fielding winning teams in nearly all of the CCC's competitive sports.

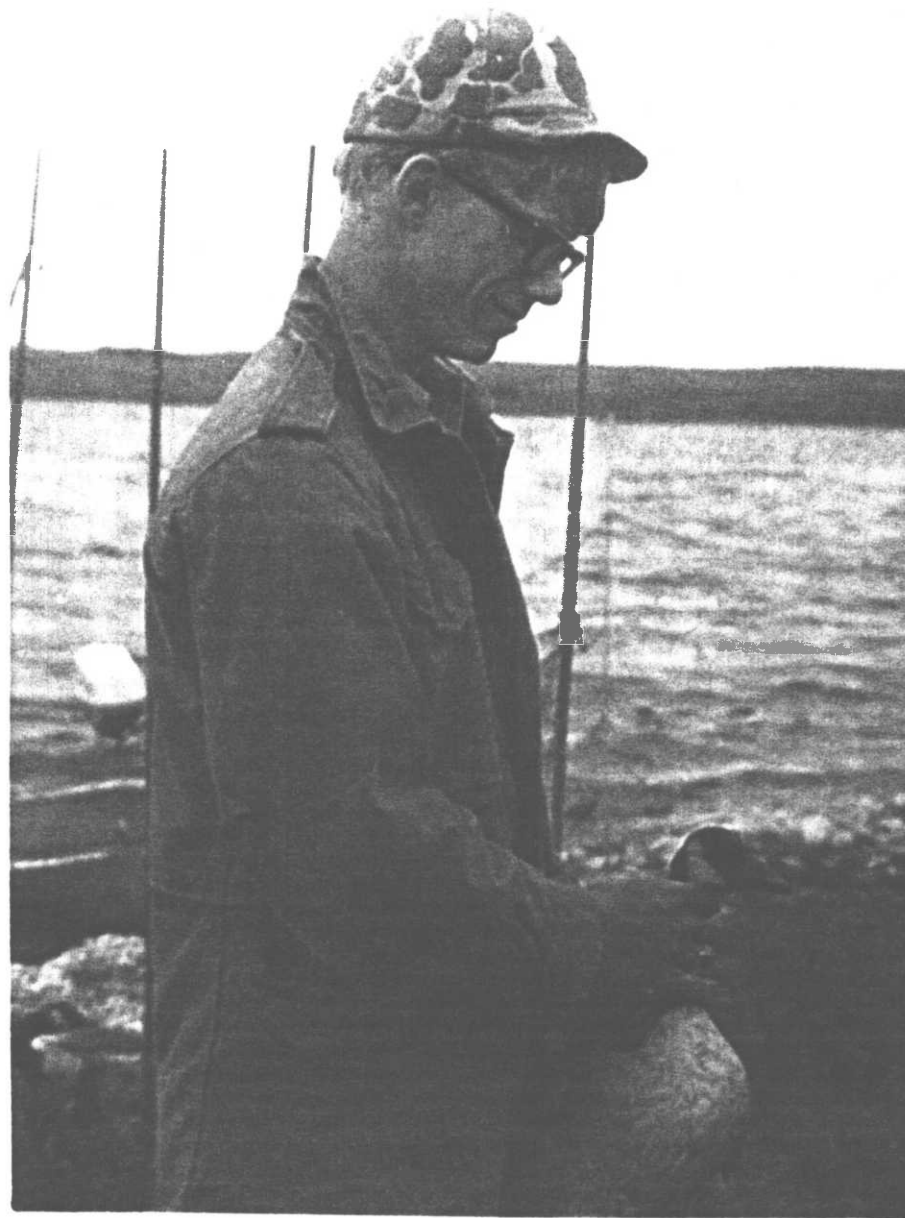
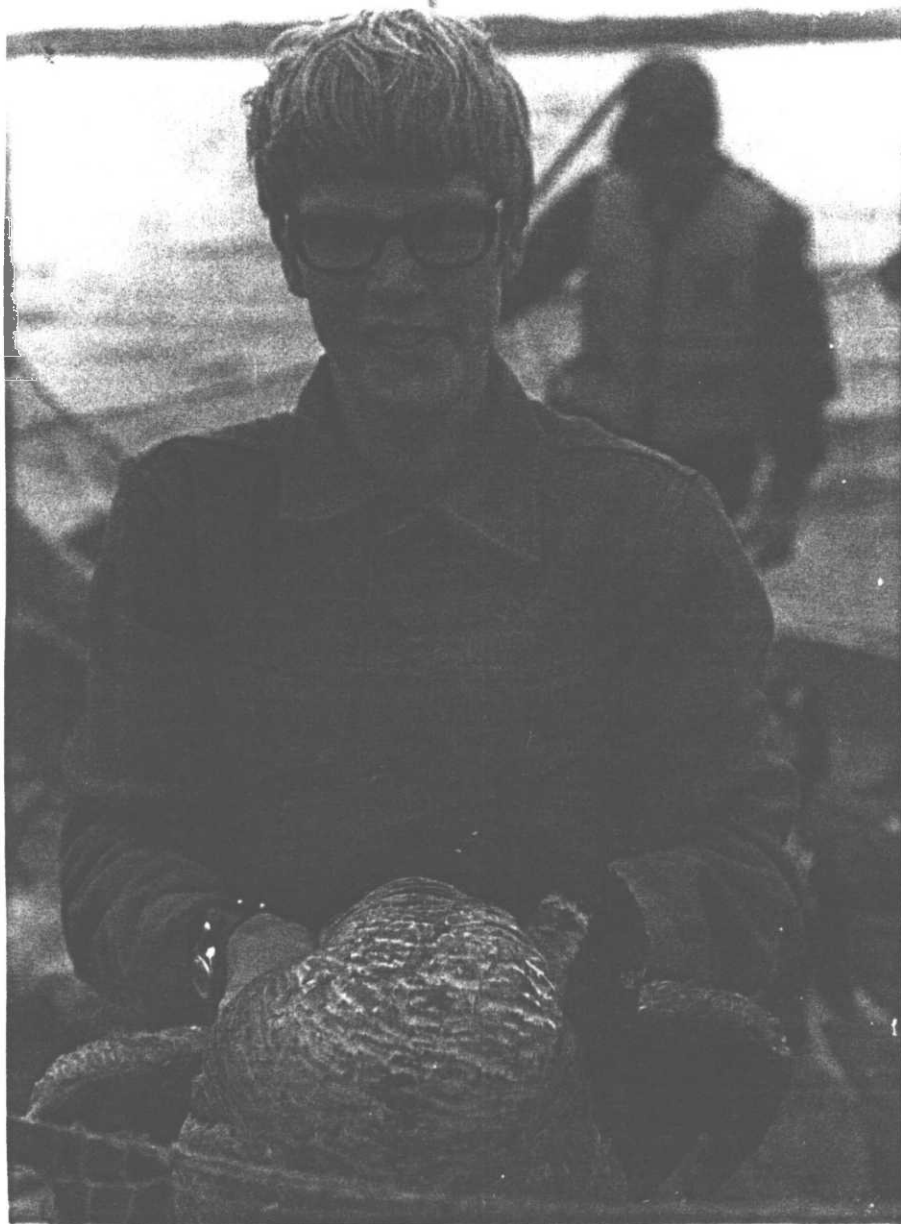
The company's social life and activities were all reported in the company's own newspaper, the "Pine Tree Tribune", which was written and published by the men, printed on the presses of The Kenmare News, and supported by advertising purchased by local Kenmare merchants.

The men of Company 797, despite changes in officers and men, continued to work on the development and construction of the Des Lacs Refuge, planting trees, constructing buildings, dams, landscaping and many other jobs. One of the projects these men undertook which is present and enjoyed yet, was the development of the Tasker's Coulee Recreational area. Under the CCC's the area was cleared, a shelter constructed, and roads and picnic facilities erected.

With the beginning of World War II, the company dwindled and was finally deactivated on May 26, 1942. At its beginning, the company numbered 200 men and officers, and on May 26, 1942 its strength was 20 men and officers. Between its beginning and end, many fine young men served in Company 797, and many of their accomplishments still stand as a tribute to Company 797 and its officers and men.



Summer Y.O.C. workers Danny Schulz (left)  
and Mike Jones assisting with goose  
banding operations at Lostwood Refuge.





Toby Placek (top) from Bottineau School of Forestry spent a week on Des Lacs in a refuge orientation project. We exposed Toby to as many facets of refuge work as we possibly could during his stay with us.

(bottom) Marty Jorgenson, our third Y.O.C. worker.





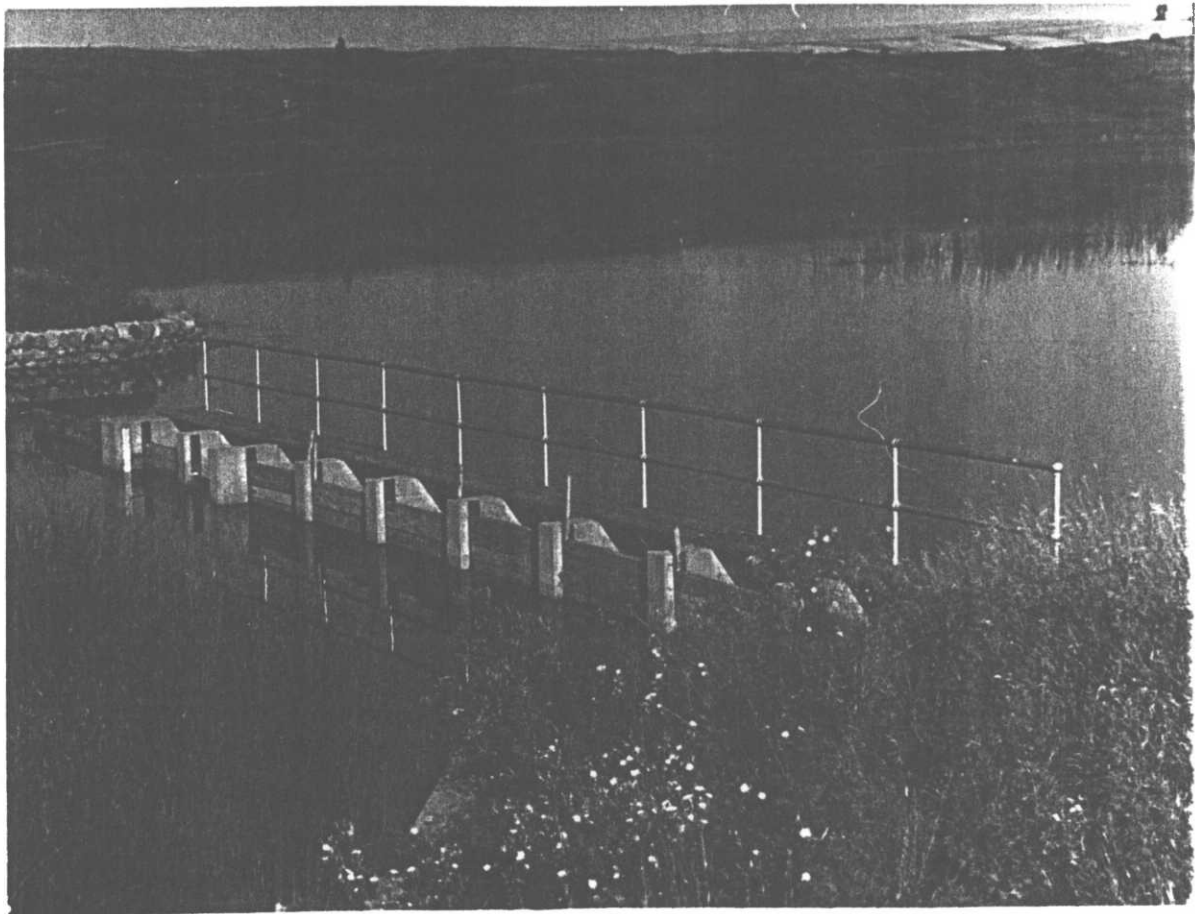
(top) Refuge Manager Jim Frates served as MC for the two parades held in conjunction with Kenmare's 75th Diamond Jubilee in June.

(bottom) Refuge Clerk Don Lindberg steps back in time as he leads his 7th Cavalry "troopers" in Kenmare's Diamond Jubilee parade.



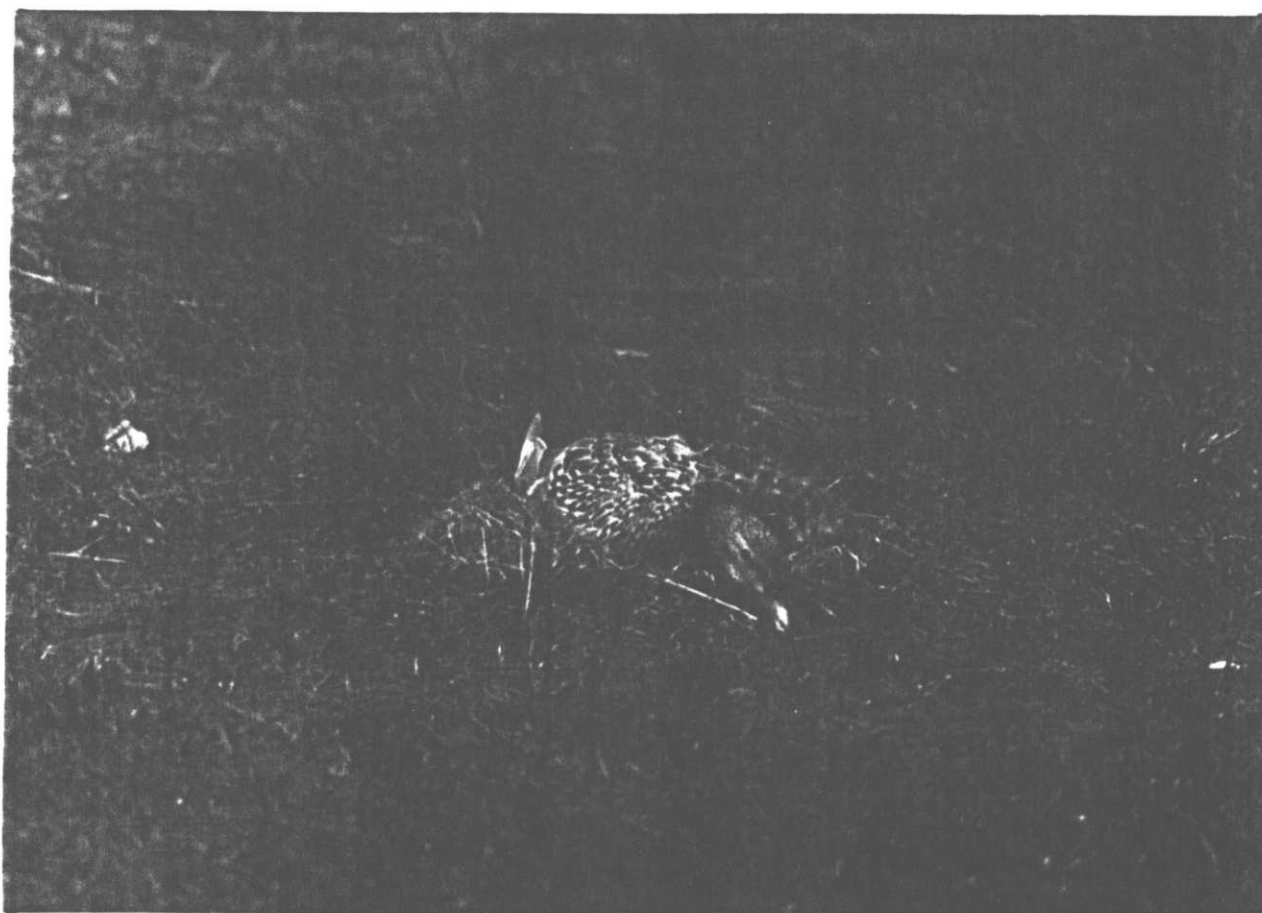
After defying death for many years, we erected safety rails at all water control structures during 1972. A peaceful scene, but a real hazard during peak flow periods.

Evidence of the excellent feelings that exist between the refuge and town of Kenmare. These two boys became disgusted with the litter problem along the county road across the refuge and pulled their wagons from town to clean up the mess.



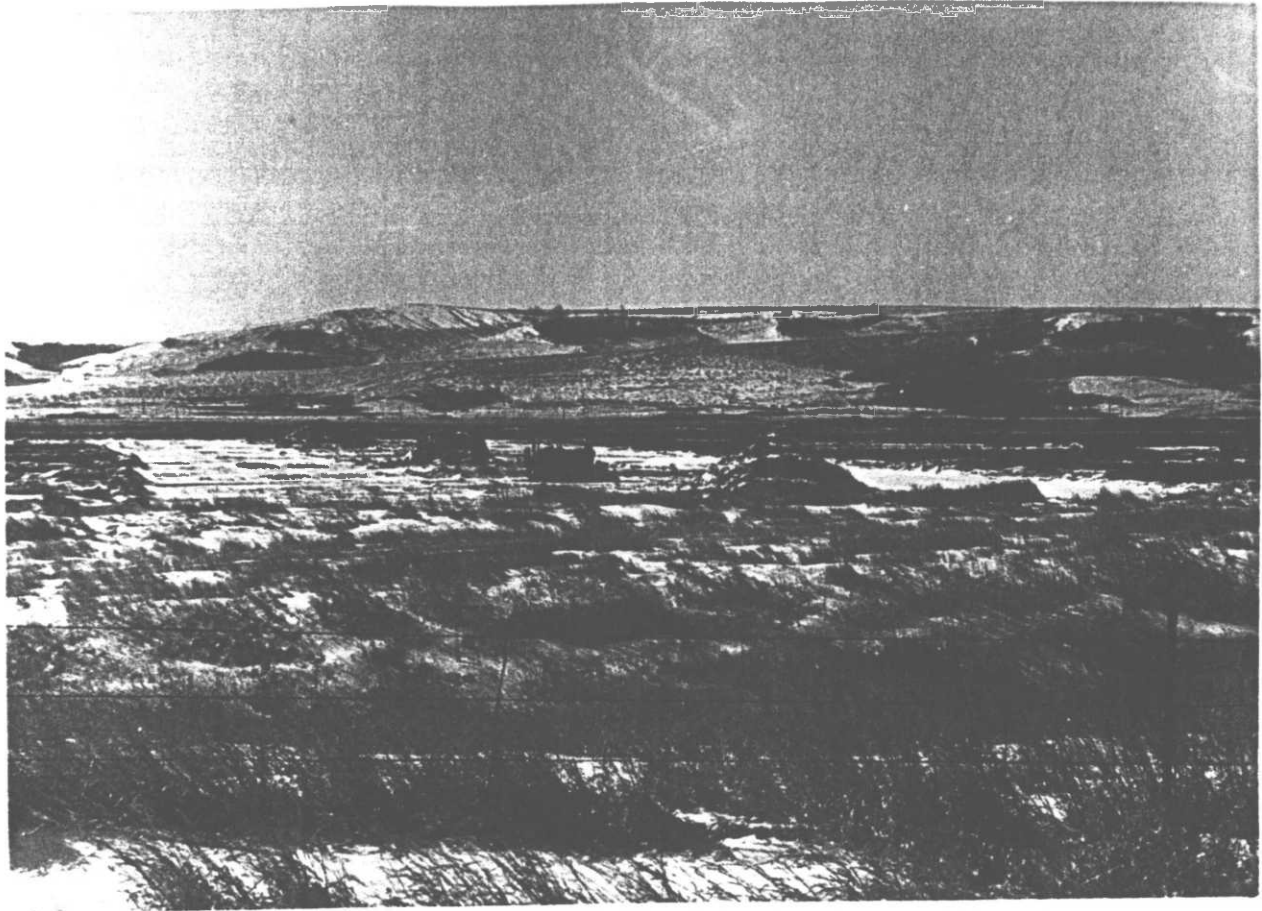
A "First" for Des Lacs was this sighting of a cattle egret on August 8th. The observation was later confirmed by Mrs. Bob Gammell of Kenmare.

This hen mallard decided to set up house-keeping in a vacant lot at the edge of Kenmare, but fire destroyed her first nest. Apparently unshaken by her first encounter with fire, she moved about two feet away and established a second nest. Despite the near prescence of cats, dogs and kids she successfully brought off a brood of five.



In preparation for our giant Canada  
restoration project in 1973, we stripped  
and piled cattail and roundstem to create  
nesting islands in Marsh Units 6, 7 & 8.  
They appear to hold some promise, but only  
the geese can provide the answer.







See pages 18-19

## Kenmare Couple Receives Special Conservation Award



Mrs. Gammell searching for young terns on a nesting island at Chase Lake—the environment where she truly feels at home.

By James E. Frates, Manager, Des Lacs National Wildlife Refuge

A well known Kenmare physician and his wife, Dr. and Mrs. R. T. Gammell, won national recognition recently when they were named recipients of the coveted "Citizens Award" by the Interior Department's Bureau of Sport Fisheries and Wildlife, for their outstanding contribution to wildlife conservation.

The Gammells are one of the first individuals in the United States to receive the Bureau's recently established award designed to officially recognize private citizens for contributions which they voluntarily made to the public service.

The award was presented on January 19th, during a commemorative supper in Kenmare. Making the presentation was a long time friend of the Gammells and former manager of the Des Lacs Refuge near Kenmare, Forrest A. Carpenter, who is currently Refuge Supervisor for the Bureau's Minneapolis based regional office.

The Gammells have long been known as nationally

recognized authorities on the birds of mid-America, particularly North Dakota. Their remarkable achievements in bird banding has, perhaps, been unparalleled by any other private citizens, and has won them international recognition. Since 1957, they have banded over 160,000 birds, representing 224 different species. The knowledge gained from their banding work has made a significant contribution not only to the field of ornithology, but to people everywhere who share their interest in birds.

The willingness of Bob and Ann Gammell to share their interest and knowledge of birds with others has made their home a favorite stop-over each summer for birders from throughout the nation. Their acquaintance with such esteemed ornithologists as Chandler S. Robbins, Roger Tory Peterson, and Olin S. Pettingill Jr., has made birding in the Kenmare area extremely popular for both amateur and professional ornithologists alike.



Dr. Gammell banding young pelicans at Chase Lake National Wildlife Refuge.



Mrs. Gammell banding a young tern.

Photos by Ed Bry

The Gammells have been long time enthusiastic supporters of the National Wildlife Refuge System, particularly the Lostwood and Des Lacs Refuge, near their Kenmare home. The recently revised bird list for all refuges in the Souris Loop, which, in addition to Lostwood and Des Lacs, includes the Upper Souris and J. Clark Salyer Refuges, was based almost entirely on the Gammells knowledge of birds acquired over the past 35 years.

As further testimony to their rare sense of dedication, they have organized and led the annual Christmas bird count on the Des Lacs Refuge each year since 1939.

In making the presentation, Carpenter paid a fine tribute to the Gammells when he said, "They are truly benefactors of every living thing—the birds, the animals, and man himself. There are few people in the entire Kenmare area who do not owe a debt of gratitude to the 24 hour-a-day dedication which 'Doc' Gammell has given over the past 38 years to their health and well being."

The Gammells have maintained a keen interest in the environment for over a quarter century, even before the word "environmental awareness" became a household word.

Rarely have two people pursued a hobby with more enthusiastic dedication and professionalism than Bob and Ann Gammell. The Citizens Award is certainly a fine tribute to this North Dakota husband and wife team who have given so much of themselves for over 35 years of dedicated work in conservation.

