

PEA ISLAND NATIONAL WILDLIFE REFUGE  
Rodanthe, North Carolina

ANNUAL NARRATIVE REPORT  
Calendar Year 1978

NATIONAL WILDLIFE REFUGE SYSTEM  
Fish and Wildlife Service  
U. S. DEPARTMENT OF THE INTERIOR



PERSONNEL

Standing l. to r. Paul Creef, Beverly Midgett, N. F. Williamson  
 Kneeling: Bruce Creef

- |                          |   |
|--------------------------|---|
| 1. N. F. Williamson, Jr. | Refuge Manager, GS-11 PFT                                 |
| 2. Larry Hartis          | Assistant Refuge Manager, GS-5 PFT<br>(1/01/78 - 6/17/78) |
| 3. Thomas J. Smith, III  | Assistant Refuge Manager, GS-5 PPT<br>(7/02/78 - 8/30/78) |
| 4. Beverly Midgett       | Clerk-Typist, GS-3 PPT                                    |
| 5. Joseph B. Creef       | Maintenance Worker, WG-7 PPT                              |
| 6. Paul A. Creef         | 2080 Hour Appointment, INT                                |

Review and Approvals

N. F. Williamson, Jr. 4/12/79  
 Submitted by Date

Paul Dickling 4/31/79  
 Area Office Date

Paul A. Creef  
 Refuge

Regional Office Date

## TABLE OF CONTENTS

	<u>Page</u>
<u>I. GENERAL</u>	
A. Introduction	1
B. Climate and Habitat Conditions	1-2
C. Land Acquisition	1
1. Fee Title	1
2. Easement	3
3. Other	3
D. Systems Status	3
1. Objectives	3
2. Funding	3-4
<u>II. CONSTRUCTION AND MAINTENANCE</u>	
A. Construction	4
B. Maintenance	4
C. Wildfire	4
<u>III. HABITAT MANAGEMENT</u>	
A. Croplands	4
B. Grasslands	5
C. Wetlands	5-6-7
D. Forestlands	8
E. Other Habitat	8
F. Wilderness and Special Areas	8
G. Easements for Waterfowl Management	8
<u>IV. WILDLIFE</u>	
A. Endangered and/or Threatened Species - Loggerhead Sea Turtle	8-10
2. Brown Pelican	10
3. Peregrine Falcon, Merlin, Osprey	10-11
4. Least Tern	12
B. Migratory Birds	12
1. Waterfowl	12-15
a. Canada Geese	12-15
b. Snow Geese	12-15
c. Whistling Swan	12-15
d. Ducks	13-15
e. Coots	13-15
C. Banding	13
D. Waterfowl Production - Blacks & Gadwalls	16
2. Marsh and Water Birds	16-17
3. Shorebirds, Gulls, Terns, and Allied Species	17
4. Raptors	17-18
5. Other Migratory Birds	18

E. Mammals, Non-Migratory Birds Others	18
1. Game Mammals	18
2. Other Mammals	18-19
3. Resident Birds	19
4. Other Animals	19

V. INTERPRETAION AND RECREATION

A. Information and Interpretation	19
1. On Refuge	19
2. Off Refuge	19
B. Recreation	19
1. Wildlife Oriented	19-20
2. Non-Wildlife Oriented	21
C. Enforcement	21

VI. OTHER ITEMS

A. Field Investigations	21-22
B. Cooperative Programs	22
1. Caretta Research	22
2. National Park Service	22
3. International Shorebird Survey	22
C. Items of Interest	22-23
D. Safety	23

## I. GENERAL

### A. Introduction

Pea Island National Wildlife Refuge, established on April 8, 1938 is located on the northern most 13.5 miles of Hatteras Island, one of the coastal barrier islands, in Dare County, North Carolina.

The refuge is comprised of 5,915 acres of ocean beach, barrier dunes, low sand ridges, sand flats, brackish and salt marshes and brackish and fresh water impoundments. In addition to the land area, there are 25,700 acres in Pamlico Sound, west side of refuge, that are closed to migratory bird hunting by Presidential Proclamation.

In 1937, Congress passed enabling legislation, The Act of August 17, 1937 authorizing the establishment of the Cape Hatteras National Seashore Recreation area. The act recognized the refuge and provided that it would continue as a National Wildlife Refuge, but such lands and waters would be a part of the national seashore and would be administered by the National Park Service for recreational uses not inconsistent with the purposes of the refuge. The Fish and Wildlife Service and National Park Service has a memorandum of agreement for the interpretive and recreational programs on the refuge.

### B. Climate and Habitat Conditions

Weather conditions for 1978 were about normal for the area. Again in 1978 we had extremely cold weather in January and February. Four inches of snow fell on the barrier islands in February, but all had melted within 24 hours.

Precipitation for the year was 9.73 inches below normal. The abnormally dry period occurred from June through October. Both North and South Ponds were dry again, except for barrow ditches. New Field water levels dropped low but did not completely go dry as North and South Ponds.

Periodic northeasters continued to erode the refuge beach and dune system. The refuge beach remained closed to ORV traffic because of erosion. (See pictures of beach erosion page 2).

### C. Land Acquisition

#### 1. Fee Title

N/A



Pictures of beach erosion on Pea Island beach.



2. Easement

N/A

3. Other

N/A

D. Systems Status1. Objectives

Pea Island is the southern most in chain of refuges along the Atlantic Coast established primarily as a wintering ground for the greater snow goose.

Although management for the snow goose receives the major thrust in the refuge management program, the refuge provides wintering habitat for Canada geese, swans and many species of both diving and dabbling ducks. The refuge currently provides wintering habitat and sanctuary to support between 3 and 4 million waterfowl use days annually. The refuge also provides nesting habitat for gadwall and black ducks.

In addition, special emphasis is given to providing nesting sites and protection for other migratory birds including shorebirds, terns, and various marsh and wading birds. Pea Island is also an important fall migration route for raptorial birds including the endangered peregrine falcon.

The protection of the refuge beaches for nesting Atlantic loggerhead sea turtles has become a necessary function in recent years.

Recreation, both wildlife and non-wildlife oriented, continues to increase each year and is an ever increasing responsibility on the refuge staff. Interpretation on the refuge is the responsibility of the National Park Service and is coordinated with the Cape Hatteras National Seashore personnel.

2. Funding

Although the refuge budget has increased annually, most of that increase has been taken by inflation. We have been able to maintain the area at a minimal standard, and replace old worn out military and other vehicular equipment.

At present the funding for the refuge looks better than ever before. With the BLHP Program, the refuge has been able to acquire much needed equipment. In future years, with BLHP funding, we hope to get some much needed rehabilitation on dikes, and water control for the three refuge impoundments.

## Wildlife Resources

FY	Migratory Birds	I&R	Endangered Species	FY Total
1978	70,000 (31,500)	16,000	1,000	87,000 (31,500)
1977	52,500 (33,400)	10,000 (2,000)	1,000	*67,700 (35,400)
1976	**115,400	9,900	1,000	126,300
1975	45,500	5,000	1,000	51,500

\* Includes 4,200 sale of equipment.

\*\* Includes transition quarter and 52,000 rehab.

( ) BLHP money.

## II. CONSTRUCTION AND MAINTENANCE

### A. Construction

There was not any new construction or major rehabilitation carried out on the refuge in FY 1978.

New equipment ordered from FY '78 wildlife resources funds was 2 4x4 pickups.

Equipment ordered from BLHP funds included a farm tractor, a Crissafulli pump and a rootrake for D-3 LGP.

### B. Maintenance

Routine preventative maintenance and repairs was carried out on refuge buildings, equipment and refuge entrance signs.

### C. Wildfire

No wildfires on the refuge in 1978.

## III. HABITAT MANAGEMENT

### A. Croplands

The refuge cropland consists of 50 acres of droughty sand in the New Field area, was planted to fescue in 1977. A fair stand was obtained and was mowed in fall of 1978. Although production is not very high the area was utilized by Canada geese.

B. Grasslands

N/A

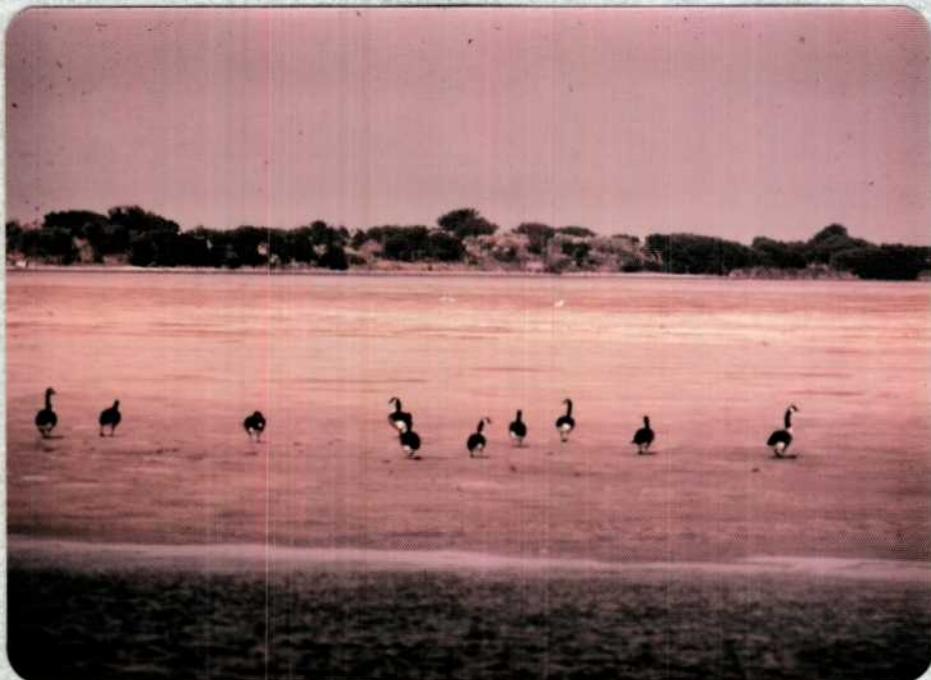
C. Wetlands

Our ability to manipulate the water levels in the refuge impoundments is minimal. The water level is raised by trapping rain water, by opening water control structures and allowing wind blown sound water to enter the impoundment or by pumping. Mother nature did not cooperate by adequate rainfall or by providing wind tides.

Several attempts were made to pump water into the North Pond, but again mother nature did not cooperate. During the period when we needed to pump we had a prevailing northeasterly wind which kept the water blown out of the creeks. Therefore, water pumped into the pond was not adequate to maintain a satisfactory water level for optimum growing conditions for aquatic food production.



Digging shallow ditch at North Pond water control structure to increase water volume in ditch to make it suitable for use of a Crisafulli pump to pump water into North Pond.



North and South Ponds drying up because lack of rain during June through October.



Two methods are used on Pea Island to control brush encroachment in the marshes; disking and burning. Approximately 100 acres were disked in the Salt Flat area. Due to extremely wet conditions during November and December, we did not get any burning accomplished during 1978.



Disking for cultivation of natural waterfowl foods in Salt Flat area.



Snow geese useage of an area previously disked.

D. Forestlands

N/A.

E. Other Habitat

Approximately 2,000 acres fall into the other category, primarily beach and barrier dune system. Because the vegetative cover on the dunes is so fragile, no active management, except protection, is undertaken.

F. Wilderness and Special Areas

The refuge has approximately 180 acres, islands in Pamlico Sound, that has been proposed as wilderness.

G. Easements for Waterfowl Management

N/A.

IV. WILDLIFEA. Endangered and/or Threatened Species - Loggerhead Sea Turtle

The Atlantic loggerhead sea turtle is considered endangered by the State of North Carolina and is listed as threatened on the U. S. list.

Historically the loggerhead utilized the refuge beaches for nesting. In recent years, 1971 to present, records have been maintained on refuge nesting activity and the nesting population have been found to be very small, average 5 nests annually. During the 1978 nesting season, a total of 7 nests were found on Pea Island. These 7 nests contained 792 eggs. A total of 433 young turtles were released to the ocean. One nest containing 159 eggs was washed away during a northeastern on September 10, 1978.

Two additional nests were picked up on the Cape Hatteras National Seashore. These two nests contained 231 eggs with 149 young turtles being released.

The egg transplant project between Pea Island and Cape Romain was conducted again in 1978. However, nothing went right in the operation. Cape Romain personnel marked 16 nests for pick up by Pea Island. Nests were laid later than usual, June 28-30. By the time eggs were to be picked up in August, some had washed away and several others were damaged from high tides. There were 13 nests transferred to Pea Island. Eggs from these nests were mixed, placed in 9 coolers, when picked up on Cape Romain. The original 13 nests contained 1,471 eggs. When picked up on August 11, 1,047 eggs were termed fertile and transferred.

During transport, eggs in six of the coolers hatched, or broke. Young turtles had large yolk sack, so they were placed in nest until yolk sacks were absorbed. Both ants and flies got into the nest which hatched during transport. Needless to say, the number of young turtles released was small, 419 young released.

The 1978 season ended Pea Island's participation in the transplant program. We feel that with the natural nesting on Pea Island, the Cape Hatteras National Seashore and nearby state beaches, we will have all the turtles we can handle.



Young turtles being released into the ocean.



Young turtles making their way to the ocean.

2. Brown Pelican

The northern most nesting colony of brown pelicans is located approximately 75 miles south of the refuge. The population has increased in the last few years. Pelicans are usually seen here from May through October. This year we had 100 here on December 18.

3. Peregrine Falcon, Merlin, Osprey

Pea Island is on the migration route of both the peregrine falcon and merlin. Sightings for these species are recorded during regular surveys in the spring and fall migrations. A summary of sightings are listed below.

Month	Peregrines	Merlins
April	1	0
September	2	1
October	5	2
November	4	0
December	3	0

Osprey are regular visitors to the refuge during the summer, spring and fall months. In 1972, two nesting platforms were erected in the North Pond hoping to start a nesting colony on the refuge. The platforms were not used until the spring of 1978. In May, birds were observed building nest on the platforms. Both platforms were used by two pairs of birds throughout the summer, but no young birds were seen. In August, another osprey was seen constructing a nest on an old telephone pole at New Inlet. Again no young were produced. Maybe this is the start of a new nesting colony.



Osprey utilizing the nesting platform in North Pond.

4. Least Tern

The least tern is listed on the State of North Carolina list of special concern species.

Since 1970, the refuge has monitored production on the refuge. Unfortunately nesting success has been very poor most years. Nesting activities and estimated production is as follows:

Year	Colonies	Breeding Pairs	Young Produced
1970	0	0	0
1971	1	35	15
1972	1	20	0
1973	2	35	0
1974	2	30	20
1975	4	200	80
1976	2	70	0
1977	2	50	0
1978	2	100	60

B. Migratory Birds1. Waterfowl

Waterfowl populations are censused weekly. These counts are done on the ground by traversing a prescribed route and estimating numbers. Ground counts are supplemented by running aerial counts, bi-monthly. Accuracy on these counts are dependent on the experience of the personnel making them. The data is considered Class D and can be used for establishing trends only. (Peak populations are based on waterfowl season rather than calendar year.)

a. Canada Geese

Peak populations was up for the 1978-79 season compared to the 1977-78 season. Peak for 1977-78 occurred in November with the high of 1,900 birds. Peak for 1978-79 was 5,650 birds and occurred in January 1979. This is a 197% increase.

b. Snow Geese

Populations were down slightly from 1977-78 season. Peak population occurred in January 1979 with 11,300 birds, an 8% decrease.

c. Whistling Swan

Swan population soared for Pea Island this season. Peak population was 4,000 birds compared to a peak of 750 for the 1977-78 season. Birds used both the refuge impoundments and Pamlico Sound.

d. Ducks

The peak population for the waterfowl season occurred in January 1979. The population on the refuge was up from 19,650 in 1977-78 season to 40,800 for 1978-79, a 108% increase.

e. Coots

Coot population was up from the 1977-78 season. Population increased from 2,800 to 3,500 a 20% increase.

C. Banding

Banding quotas for 1978 were exceeded. Banding quotas were 200 black ducks and 50 mallards.

Banding accomplishments were as follows:

Black Duck	201
Mallard	55
Scaup	65
Green-winged Teal	20
Pintail	43
Redhead	11
Ring-necks	9
Widgeon	14

Table I gives a yearly comparison for waterfowl use days for the period of 1974-1978. Total waterfowl use days for calendar year 1978 was 3,281,800 compared to 2,591,200, a 26% increase. Whistling swans showed the greatest increase, 136,800 use days compared to 44,000 use days in 1977, a 208% increase. Coots use was up by 159%, 280,500 compared to 108,200 use days. Duck use was up 43% from 1,340,500 to 1,933,100 use days. Both Canada and snow goose use days declined. Canada goose was down from 357,500 to 289,700 use days, a 19% drop, which snow goose use declined from 741,000 to 641,700 use days, a 14% decrease.

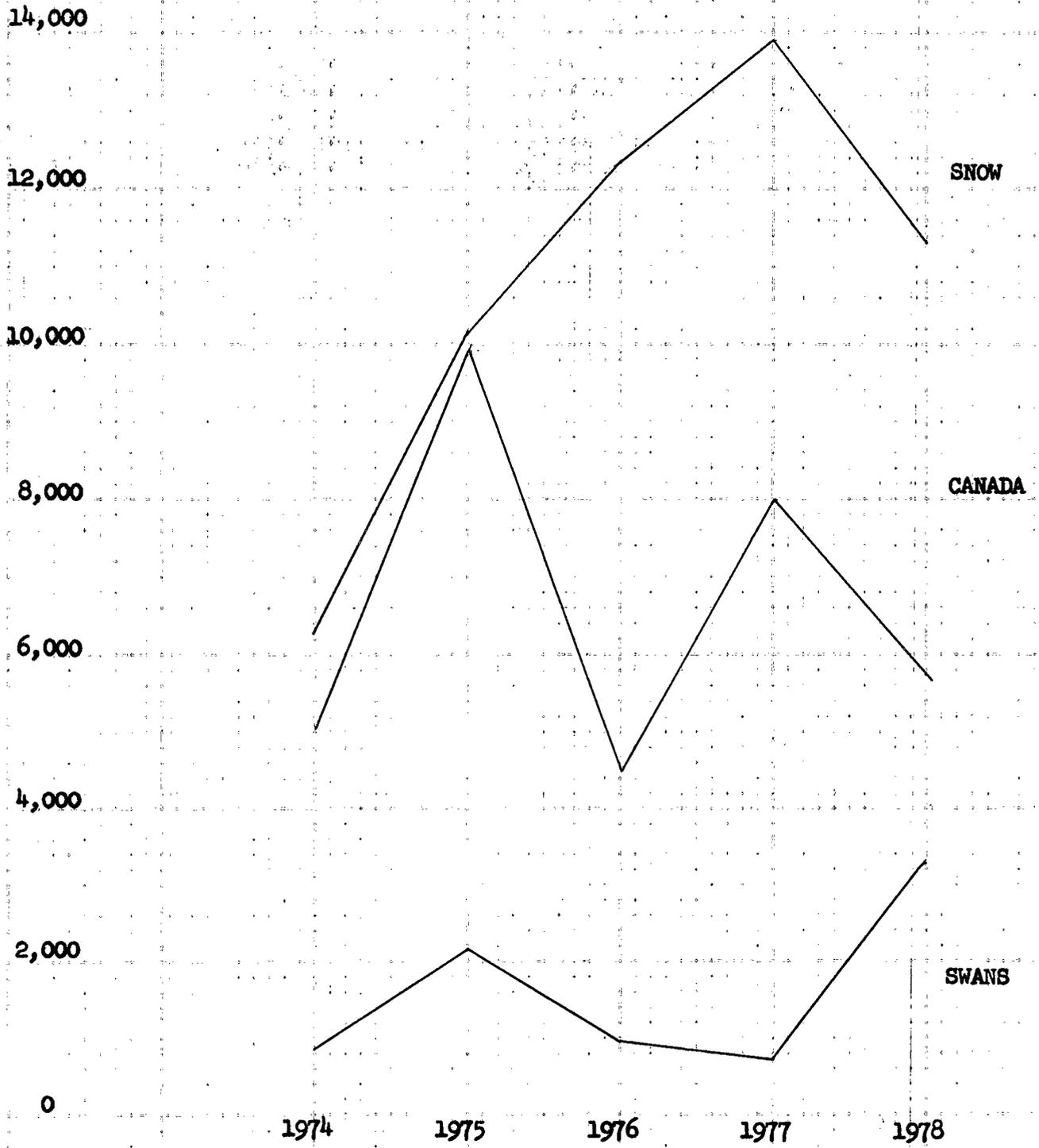
Table I: Waterfowl Use Days 1974-1978

Year	Swan	Snow	Canada	Ducks	Coots
1974	28,260	495,100	684,300	1,601,370	216,150
1975	24,724	716,500	554,500	2,581,300	410,100
1976	49,900	504,100	275,000	1,977,400	554,700
1977	44,000	741,000	357,500	1,340,500	108,200
1978	136,800	641,700	289,700	1,933,100	280,500

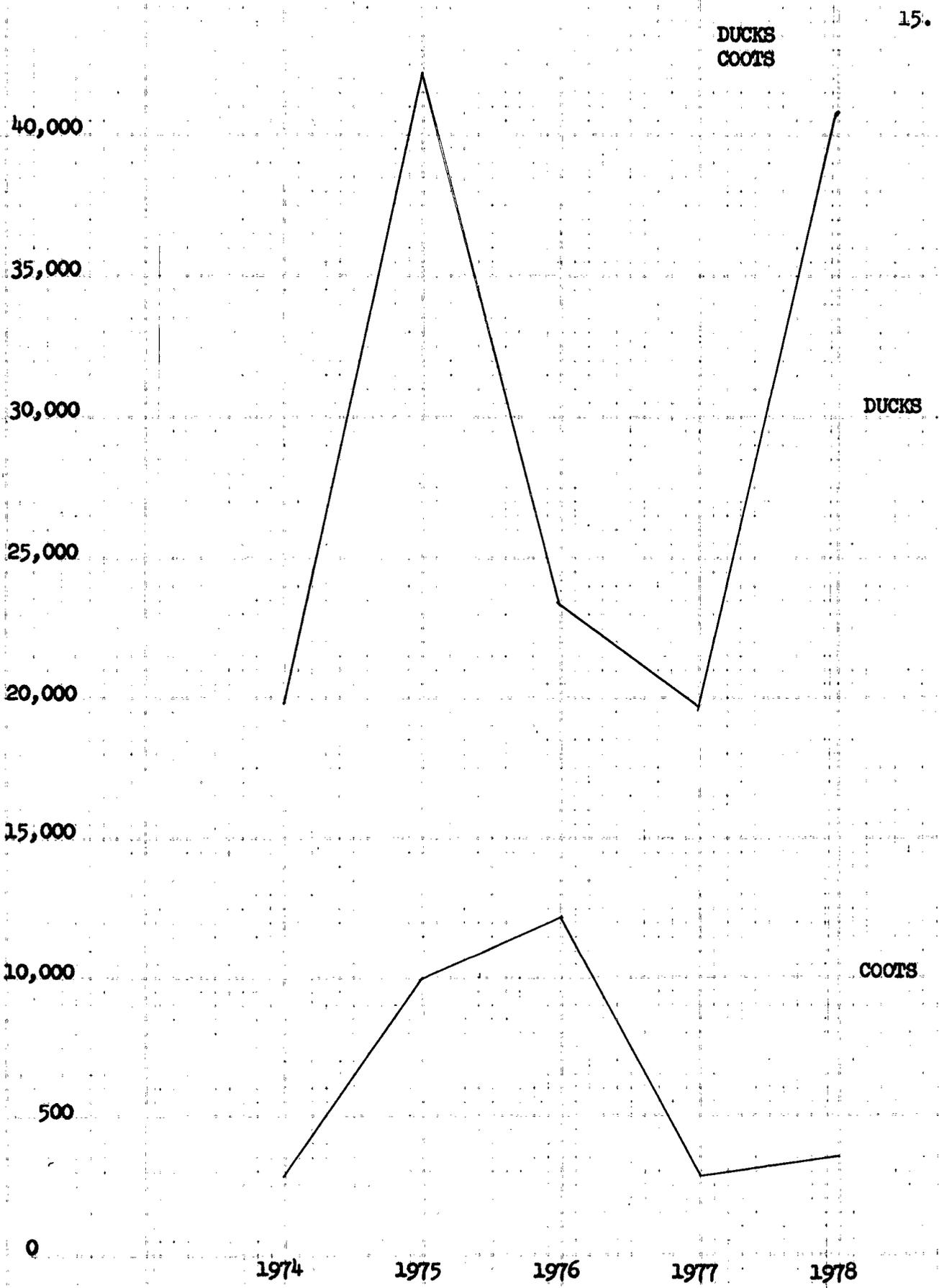
Graphs 1 and 2 are a representation of the peak waterfowl populations for the refuge for the same five year period, 1974-1978. Graphs on following two pages.

GRAPH 1 - PEAK POPULATIONS

SNOW GEESE  
CANADA GEESE  
WHISTLING SWAN



GRAPH 2 - PEAK POPULATIONS



D. Waterfowl Production - Blacks and Gadwalls

Waterfowl nesting consists of a small breeding population of blacks and gadwalls. Overall production for 1978 was up from 1977.

Black duck production was down slightly from 160 to 150 birds, a decrease of about 9%. Gadwall production was up from 150 to 200, an increase of 33%.

On July 15, 1978 a brood of Class 2 Canada goose goslings were seen in the North Pond. This is the first documented Canada goose production on Pea Island in many years.

2. Marsh and Water Birds

Total use days for this group declined slightly. However, peak populations were down by 42%, 5,200 compared to 9,000 in 1977. Possibly, most of this drop in population was due to a change in individual marking censuses.

Year	Use Days	Peak Populations
1974	235,525	6,951
1975	329,662	9,335
1976	339,362	9,942
1977	457,967	8,988
1978	450-057	5,185

Estimated production for the rookerys in North Pond was as follows:

Black-crowned Night Heron	165
Yellow-crowned Night Heron	16
Louisiana Heron	60
Little Blue Heron	40
Green Heron	6
Glossy Ibis	100
White Ibis	2
Great Egret	50
Snowy Egret	30
Cattle Egret	20

Surveys were also run on the spoil islands in the Oregon Inlet area adjacent to the refuge. On July 8, 1978 a large nesting population of wading birds, shorebirds, gulls and terns were found. Populations estimates were as follows:

Royal Terns	3,975
Sandwich Terns	400
Common Terns	2,000
Least Terns	100

Black Skimmers	990
Gull-billed Terns	100
Willetts	70
Oystercatchers	60
Herring Gulls	170
Laughing Gulls	2,500
Glossy Ibis	80
Great Egret	200
Snowy Egret	100
Louisiana Herons	400
Little Blue Herons	60
Black-crowned Night Herons	110

An estimated 2,250 young royal terns were seen on one spoil island during the survey.

### 3. Shorebirds, Gulls, Terns and Allied Species

Use days for this category dropped drastically from the past year. Use days for 1977 was almost 75 million compared to 2.5 million in 1978. This drastic decline can be attributed to absences of large flocks of gulls, 1.5 million that occurred here in January and February of 1977. Populations for 1978 were normal for most species.

#### Use Days and Peak Populations

Year	Use Days	Peak Populations
1974	1,928,580	15,540
1975	2,886,875	23,130
1976	10,981,225	404,950
1977	74,735,998	1,666,723
1978	2,334,000	21,150

Least tern nesting activity on the refuge beaches discussed in endangered species section.

### 4. Raptors

Raptors are censused during the fall migration period, September through December. Censuses are done prior to major cold fronts that cause the birds to move south. Actual censuses are conducted by counting migrating as they fly past an observation station. This station is located at New Inlet where Pea Island is very narrow and the view across the island from the Atlantic Ocean to Pamlico Sound is unobstructed. During other periods random counts are made of birds using the area.

Estimated use days and peak populations for the past 5 years, 1974-1978 are summarized on the following page.

Year	Use Days	Peak Populations
1974	8,650	135
1975	17,500	190
1976	8,585	85
1977	18,957	912
1978	12,994	224

#### 5. Other Migratory Birds

Other migratory bird populations were normal. On the 1978 Christmas Bird Count, a total of 144 species, with 185,650 individuals, were counted in the Dare County area. Of this 144 species, 102 species were found on Pea Island.

#### E. Mammals, Non-Migratory Birds and Others

##### 1. Game Mammals

Muskrat and nutria populations have declined slightly in the past two years. This is attributed to the severe cold. After the severe freeze up we have found dead animals of both species.

Cottontail rabbits and river otter populations have increased, but still remain fairly low.

##### 2. Other Mammals

Feral cats continue to be a problem. They are eradicated whenever possible.



Roaming dogs have been seen on the refuge on several occasions. One pack of three was wiped out in 1978. Since eradication of this pack, only occasional tracks have been found.

Infrequently marine mammals become beached or their carcasses wash ashore on the refuge. When this happens, Dr. Jim Mead, Smithsonian Institute is notified and carcasses are salvaged when possible.

### 3. Resident Birds

The ring-necked pheasant population has remained fairly stable over the years, with an estimated population of 500 to 600 birds. Production for 1978 was fair, estimated 100 young to flight stage.

### 4. Other Animals

Populations of other animals remain stable. No formal censuses are conducted for other species.

## V. INTERPRETATION AND RECREATION

### A. Information and Interpretation

#### 1. On Refuge

Six programs were presented to various groups ranging from Brownie and Cub Scouts to college wildlife classes. Programs were tailored to each group. Topics ranged from waterfowl identification, aquatic waterfowl food identification and general management practices on the refuge.

Personnel from Cape Hatteras National Seashore planned several programs on the refuge. They conducted several bird watching trips on the North Pond and New Field areas. A market hunt demonstration, with the old punt gun, was planned and scheduled several times with very little interest shown in the program. After three programs, with less than 10 people, the demonstrations were cancelled.

#### 2. Off Refuge

One program was presented to the Dunes of Dare Garden Club. This is an annual event with the programs lasting about 2 hours.

### B. Recreation

#### 1. Wildlife Oriented

Wildlife oriented recreation on Pea Island is primarily surf fishing and bird watching. These two activities accounted for 458,500 and 553,000 activity hours respectively. Fishing use was

up 10%, 458,500 activity hours compared to 414,000 activity hours. Wildlife observation was up 25%, an increase from 415,800 to 553,000 activity hours.

Off-road vehicling on Pea Island is primarily associated with surf fishing. ORV use was limited to an area of .5 to .75 miles, depending on erosion and tide, at Oregon Inlet. An estimated 19,350 ORV's were used in this area with a total of 58,350 people visits. The remainder of the refuge was closed to ORV use in December 1977 and remained closed through 1978.



Off-road vehicles and fishermen on North Point  
of Pea Island

## 2. Non-Wildlife Oriented

This category of recreation on Pea Island consists of swimming, sunbathing, hiking, surfing and other. Use in this category was up slightly from last year, from 117,600 to 156,900 activity hours, an increase of 25%.

### C. Enforcement

With the refuge beach closed to ORV use, enforcement was a problem. Most people obeyed the closed area signs, but there are always the exceptions. Also, we found that people have a hard time reading and understanding a simple "No Parking" sign. A total of 122 citations were issued during 1978. Most of these involved ORV's driving in a closed or parking in a no parking area.

#### Violation and Case Disposition for 1978

<u>Violation</u>	<u>Forfeited Collateral</u>	<u>Jevenile Not Prosecuted</u>	<u>Dismissed</u>
Parking in closed area	50		
Driving off designated roadway	51	1	4
Camping in closed area	7		
Littering			1
Dog off leash	1		
Hunting related	6	1	
Total	<u>115</u>	<u>2</u>	<u>5</u>

## VI. OTHER ITEMS

### A. Field Investigations

The study of Public and Wildlife Use on Beaches of Pea Island National Wildlife Refuge was continued in 1978. The primary objective was to determine and document conflicts between wildlife uses and vehicular uses on Pea Island beaches.

During the summer of 1977, data were collected on wildlife and public use on two sections of beach. One section on Pea Island where vehicles were allowed and a section on the Cape Hatteras National Seashore, just north of the refuge, where ORV's were not allowed. Data collected included avian species, total number of birds, ghost crab burrow counts, people and ORV's.

On the section of seashore where vehicles were banned, there were higher numbers of birds and total number of species; ghost crab population was several times greater than on Pea Island beach. The number of people using the beach was the same. The only difference

was vehicles. Data collected was subjected to statistical analysis and it was found there were significant differences in wildlife uses where ORV's were allowed.

In 1978, since the Pea Island beach was closed in December 1977 and remained closed in 1978, the study was continued to compare the two areas with vehicles banned from both. In 1977, the seashore beach had much more wildlife use on the study beach than the refuge had on the study beach.

In 1978, the reverse occurred. The refuge beach had significantly higher avian use, both total numbers and species, than the seashore study area. The ghost crabs on Pea Island recovered to about the same as that on the seashore. Also, since ORV's were banned, total people use dropped on the refuge beaches.

Reports on study for both summers have been completed and submitted.

#### B. Cooperative Programs

##### 1. Caretta Research

Records are maintained on all loggerhead sea turtle sightings, reported sightings and nesting activities on the refuge. Data is forwarded to Caretta Research each fall when turtle nesting activity is completed.

##### 2. National Park Service

The National Park Service is conducting a study on the loggerhead sea turtle on all seashores in the southeast. We are providing information on turtles that occur on the refuge.

##### 3. International Shorebird Survey

This program is carried out through the Manomet Bird Observatory. Data from regular shorebird surveys taken during the fall migration is provided to the observatory. Other known cooperators in the project are the Canadian Wildlife Service and the Surinam Department of Forestry.

#### C. Items of Interest

In April, the south end of the bridge across Oregon Inlet began to sink. It seems that when the bridge was built, someone used piling that was a little short. Piling on the south end of the bridge were driven into the bottom about 20-25 feet. When the channel shifted the sand eroded away from the piling. After about 5 months work and an estimated 1 million dollars the bridge was stabilized.

Larry Hartis, Assistant Refuge Manager transferred to Pee Dee on June 18.

Larry transferred from refuge manager series to biological technician series. The assistant managers position remained open the remainder of the year.

Tom Smith, Assistant Manager from May 1976 until January 1977, when he went on LWOP status to return to college, resigned in December. Tom received a M.S. from the University of Virginia and will continue in school working on his P.H.D.

D. Safety

Staff and Safety Meetings were held monthly. Occasionally films were shown and discussed. Other topics discussed were, first aid for eye emergencies; office safety; treatment for skin poisons; drivers fatigue; escape rules in house fires; and other safety precautions.

Pea Island has not had a lost time accident since January 21, 1958. Total man hours worked since that time were 131,085.