

PIXLEY NATIONAL WILDLIFE REFUGE

NARRATIVE REPORT 1971

REFUGE PERSONNEL

See Kern National Wildlife Narrative

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PIXLEY NATIONAL WILDLIFE REFUGE

I. GENERAL

A. Weather.

No weather measurement instruments are located at Pixley refuge. The only difference between Kern and Pixley is that the latter receives slightly more precipitation.

B. Habitat Conditions.

1. Water:

Pixley was completely dry until October of this year. During 1970, all dikes damaged by the 1969 flood, were repaired; however, due to lack of funds this year, the only well on the refuge was never turned on. In October excess irrigation drainage water entered the refuge from Deer Creek, partially filled the central ditch, and flooded approximately five acres. The sandpit on the west side of Deer Creek also held some water during the latter part of the year.

2. Food and Cover:

Due to the absence of water, no food or cover was available for waterfowl. The first rain of any consequence didn't fall until December 23 and this delayed the usual "green-up" two months. Goose, coot, and widgeon browse was virtually non-existent. The few birds that used the refuge were forced to leave to find food.

The willow stand along Deer Creek, Russian thistle and atriplex provided some food and cover for pheasants, passerines and small mammals.

II. WILDLIFE

A. Migratory Birds.

1. Waterfowl:

a. Geese.

Goose usage for the year was down drastically from previous years. Lack of browse and water was the causitive factor. No geese were present at the beginning of the year.

During the week of December 19, our first "fall" migrants arrived, 50 large Canadas and five cackling geese were recorded. The last week of the year saw 100 Canadas and ten cacklers using the refuge.

b. Ducks:

As was true with goose usage, the same held true with the ducks. No birds were present at the beginning of the year. When the drain water entered the refuge in October, a few ducks began using it as a loafing area. Four hundred five birds were recorded the second week of October and they peaked the third week of December at 3,085 birds. Fifteen hundred green-winged teal and 800 mallards made up 75 percent of the total.

c. Coots:

No coots were present until early December. A peak of only 25 birds was reached ^{the} last week of the year.

2. Water and Marsh Birds:

From January to October no water or marsh birds were seen. Two great blue herons and a peak of about 75 sandhill cranes were recorded the last three months.

3. Shorebirds, Gulls and Terns:

Only seven of the more common shorebirds were recorded during the fall after the excess drain water entered the refuge, they were: killdeer, sandpiper sp., long-billed curlew, dowitchers, greater yellowlegs, American avocet and marbled godwits.

4. Doves:

Mourning dove populations fluctuated between approximately 15 at the start of the year to 175 - 200 during August and then down to 10 at the end of the year. No nesting was observed.

B. Upland Game Birds:

The willows and brushy thickets along Deer Creek provided ideal cover for the ring-necked pheasants that used the refuge. From 100 birds early in the year, the population peaked at an estimated 200 birds during the fall when hunting pressure in the surrounding area drove them into the refuge. Total young produced was unknown.

C. Big Game Animals:

None present.

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

Coyotes were seen frequently throughout the year. No actual sightings of the San Joaquin Kit Fox were recorded during 1971; tracks were seen around what is believed to be an active den. Hopefully, the denning study that will commence in March, 1972, at Kern Refuge will be carried out at Pixley also.

Black-tailed jackrabbits were especially abundant this year and desert cottontails were seen occasionally. California ground squirrels and San Joaquin antelope squirrel were seen frequently on the entire refuge.

E. Hawk, Eagles and Owls:

Sparrow, red-tailed and marsh hawks were present in small numbers throughout the year. Two white-tailed kites were present at the close of the year. One golden eagle was seen periodically during the year. Burrowing owls were frequently seen this period.

F. Other Birds:

No new birds were seen this year.

G. Fish:

A few fish entered the refuge with the excess drain water as evidenced by the great-blue heron feeding in the ditch. No attempt was made to identify them however.

H. Reptiles:

An occasional sighting of the blunt-nosed leopard lizard was made during the period.

I. Disease:

None observed.

III. REFUGE DEVELOPMENT AND MAINTENANCE

A. Physical Development:

Due to the lack of funding, no physical developments were undertaken during 1971. Periodic trips were made to Pixley for general surveillance.

B. Plantings:

None.

C. Collections and Receipts:

None.

D. Control of Vegetation:

None.

E. Planned Burning:

None.

F. Fires:

None.

IV. RESOURCE MANAGEMENT

A. Grazing:

Range conditions were only fair this year. Four permittees ran 665 head of cattle on 3600 acres of refuge lands. Total AUM's were 1410.0 for a cash revenue of \$3877.73.

B. Haying:

None.

C. Fur Harvest:

None.

D. Timber Removal:

None.

E. Commercial Fishing:

None.

F. Other Uses:

None.

V. FIELD INVESTIGATIONS

None.

VI. PUBLIC RELATIONS

A. Recreational Uses:

No recreational use was recorded during the year.

B. Refuge Visitors:

Included in the Kern narrative.

C. Refuge Participation:

Also included in the Kern narrative.

D. Hunting:

Pixley is closed to public hunting, however there was evidence of some hunter trespass.

E. Violations:

None observed.

F. Safety:

Included in Kern Refuge narrative.

VII. ITEMS OF INTEREST

See Kern Refuge narrative.

SIGNATURE PAGE

Prepared by: Bruce Wiseman
Ass't. Refuge Manager

Submitted by:

Leon A. Littlefield

for. Bruce Wiseman
(Signature)

Date: March 9, 1972

Refuge Manager
(Title)

Approved, Regional Office:

Date:

(Signature)

(Title)

WATERFOWL

REFUGE PILSBY N. W. S.

MONTHS OF JANUARY TO MAY, 19 71

(1) Species	(2) Weeks of reporting period									
	1	2	3	4	5	6	7	8	9	10
<u>Swans:</u>										
Whistling										
Trumpeter										
<u>Geese:</u>										
Canada										
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
<u>Ducks:</u>										
Mallard										
Black										
Gadwall										
Baldpate										
Pintail										
Green-winged teal										
Blue-winged teal										
Cinnamon teal										
Shoveler										
Wood										
Redhead										
Ring-necked										
Canvasback										
Scaup										
Goldeneye										
Bufflehead										
Ruddy										
Other										
<u>Coot:</u>										

REFUGE DRY THIS PERIOD

REFUGE DRY THIS PERIOD

3-17
 Cont. NR-1
 (Rev. March 1953)

WATERFOWL
 (Continuation Sheet)

REFUGE PIXLEY N.W.R.

MONTHS OF JANUARY TO MAY, 19 71

(1) Species : 11 : 12 : 13 : 14 : 15 : 16 : 17 : 18 : (2) Weeks of reporting period : (3) Estimated waterfowl days use : (4) Production Broods: Estimated seen : total

Species	11	12	13	14	15	16	17	18	(2)	(3)	(4)
Swans:											
Whistling											
Trumpeter											
Geese:											
Canada											
Cackling											
Brant											
White-fronted											
Snow											
Blue											
Other											
Ducks:											
Mallard	REFUGE DRY								REFUGE DRY		
Black											
Gadwall											
Baldpate											
Pintail											
Green-winged teal											
Blue-winged teal											
Cinnamon teal											
Shoveler											
Wood											
Redhead											
Ring-necked											
Canvasback											
Scaup											
Goldeneye											
Bufflehead											
Ruddy											
Other											
Coot:											

(over)

	(5)	(6)	(7)	SUMMARY
	Total Days Use	Peak Number	Total Production	
Swans	:	:	:	Principal feeding areas
Geese	:	:	:	
Ducks	:	:	:	Principal nesting areas
Coots	:	:	:	

Reported by Leon A. Littlefield, Refuge Manager

REFUGE DRY THIS PERIOD

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

- (1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.
- (2) Weeks of Reporting Period: Estimated average refuge populations.
- (3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.
- (4) Production: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.
- (5) Total Days Use: A summary of data recorded under (3).
- (6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.
- (7) Total Production: A summary of data recorded under (4).

3-17
 Cont. NR-1
 (Rev. March 1953)

WATERFOWL
 (Continuation Sheet)

REFUGE PIXBAY N.W.R. MONTHS OF MAY TO AUGUST, 19 71

(1) Species	(2) Weeks of reporting period								(3) Estimated waterfowl days use	(4) Production Broods: Estimated seen: total
	11	12	13	14	15	16	17	18		
<u>Swans:</u>										
Whistling										
Trumpeter										
<u>Geese:</u>										
Canada										
Cackling										
Brant										
White-fronted										
Snow										
Blue										
Other										
<u>Ducks:</u>										
Mallard										
Black										
Gadwall										
Baldpate										
Pintail										
Green-winged teal										
Blue-winged teal										
Cinnamon teal										
Shoveler										
Wood										
Redhead										
Ring-necked										
Canvasback										
Scaup										
Goldeneye										
Bufflehead										
Ruddy										
Other										
<u>Coot:</u>										

(over)

	(5)	(6)	(7)	SUMMARY
	Total Days Use	Peak Number	Total Production	
Swans	_____	_____	_____	Principal feeding areas _____
Geese	_____	_____	_____	_____
Ducks	_____	_____	_____	Principal nesting areas _____
Coots	_____	_____	_____	_____

Reported by Leon A. Littlefield, Refuge Manager

REFUGE DRY THIS PERIOD

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

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- (2) Weeks of Reporting Period: Estimated average refuge populations.
- (3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.
- (4) Production: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.
- (5) Total Days Use: A summary of data recorded under (3).
- (6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.
- (7) Total Production: A summary of data recorded under (4).

WATERFOWL

REFUGE PILGRIM W.D.S.

MONTHS OF SEPTEMBER TO DECEMBER, 19 71

(1) Species	(2) Weeks of reporting period									
	9/5-11	9/12-18	9/19-25	9/26-10/2	10/3-9	10/10-16	10/17-23	10/24-30	10/31-11/6	11/6-13
	1	2	3	4	5	6	7	8	9	10
Swans:										
Whistling						0	0	0	0	0
Trumpeter						0	0	0	0	0
Geese:										
Canada	REFUGED	DRY		REFUGED	DRY	0	0	0	0	0
Cackling						0	0	0	0	0
Brant						0	0	0	0	0
White-fronted						0	0	0	0	0
Snow						0	0	0	0	0
Blue						0	0	0	0	0
Other						0	0	0	0	0
Ducks:										
Mallard	REFUGED	DRY		REFUGED	DRY	100	100	100	100	200
Black						0	0	0	0	0
Gadwall						10	10	10	10	10
Baldpate						10	10	10	10	10
Pintail						100	100	300	200	200
Green-winged teal						50	50	100	100	300
Blue-winged teal						0	0	0	0	0
Cinnamon teal						125	125	125	125	25
Shoveler						10	10	20	40	0
Wood						0	0	0	0	0
Redhead						0	0	0	0	0
Ring-necked						0	0	0	0	0
Canvasback						0	0	0	0	0
Scaup						0	0	0	0	0
Goldeneye						0	0	0	0	0
Bufflehead						0	0	0	0	0
Ruddy						0	0	0	0	0
Other						0	0	0	0	0
TOTAL DUCKS						405	405	665	585	745
Coot:						0	0	0	0	0

3-17

Cont. No-1

(Rev. March 1953)

WATERFOWL
(Continuation Sheet)

REFUGE PIXLEY N.W.R.MONTHS OF SEPTEMBER TO DECEMBER, 19 71

(1) Species	(2) Weeks of reporting period								(3) Estimated	(4) Production	
	11/14-20 11	11/21-27 12	11/28-12/4 13	12/5-11 14	12/12-18 15	12/19-26 16	12/26-31 17	18	waterfowl days use	Broods: seen	Estimated total
Swans:											
Whistling	0	0	0	0	0	0	0	0	0	0	0
Trumpeter	0	0	0	0	0	0	0	0	0	0	0
Geese:											
Canada	0	0	0	0	0	50	100	1,050	0	0	
Cackling	0	0	0	0	0	5	10	105	0	0	
Brant	0	0	0	0	0	0	0	0	0	0	
White-fronted	0	0	0	0	0	0	0	0	0	0	
Snow	0	0	0	0	0	0	0	0	0	0	
Blue	0	0	0	0	0	0	0	0	0	0	
Other Total	0	0	0	0	0	55	110	1,155	0	0	
Ducks:											
Mallard	200	200	200	150	150	800	800	17,500	0	0	
Black	0	0	0	0	0	0	0	0	0	0	
Gadwall	10	10	10	5	5	10	10	735	0	0	
Baldpate	10	10	30	30	30	250	250	3,080	0	0	
Pintail	200	100	150	150	150	300	300	15,050	0	0	
Green-winged teal	300	200	250	250	250	1,500	1,500	24,850	0	0	
Blue-winged teal	0	0	0	0	0	0	0	0	0	0	
Cinnamon teal	25	10	10	10	10	0	0	4,130	0	0	
Shoveler	0	35	85	100	100	225	225	5,600	0	0	
Wood	0	0	0	0	0	0	0	0	0	0	
Redhead	0	0	0	0	0	0	0	0	0	0	
Ring-necked	0	0	0	0	0	0	0	0	0	0	
Canvasback	0	0	0	0	0	0	0	0	0	0	
Scaup	0	0	0	0	0	0	0	0	0	0	
Goldeneye	0	0	0	0	0	0	0	0	0	0	
Bufflehead	0	0	0	0	0	0	0	0	0	0	
Ruddy	0	0	0	0	0	0	0	0	0	0	
Other TOTAL DUCKS	745	565	735	695	695	3,085	3,085	70,945	0	0	
Coot:	0	0	0	5	10	20	25	420	0	0	

(over)

	(5)	(6)	(7)
	Total Days Use	Peak Number	Total Production
Swans	0	0	0
Geese	1,155	110	0
Ducks	70,945	3,085	0
Coots	25	420	0

SUMMARY

Principal feeding areas Feeding on atriplex and green grass in desert and on surrounding croplands.

Principal nesting areas none.

Reported by R. Bruce Wiseman, Assistant Refuge Manager

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

- (1) Species: In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and national significance.
- (2) Weeks of Reporting Period: Estimated average refuge populations.
- (3) Estimated Waterfowl Days Use: Average weekly populations x number of days present for each species.
- (4) Production: Estimated number of young produced based on observations and actual counts on representative breeding areas. Brood counts should be made on two or more areas aggregating 10% of the breeding habitat. Estimates having no basis in fact should be omitted.
- (5) Total Days Use: A summary of data recorded under (3).
- (6) Peak Number: Maximum number of waterfowl present on refuge during any census of reporting period.
- (7) Total Production: A summary of data recorded under (4).

MIGRATORY BIRDS
(other than waterfowl)Refuge PILLEY N.W.R.Months of JANUARY to APRIL 1952

(1) Species Common Name	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total Estimated Number
	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	
I. <u>Water and Marsh Birds:</u>										
<p>PILLEY WAS PLACED ON STANDBY STATUS THIS YEAR DUE TO LACK OF FUNDS.</p> <p>DURING THE LATTER PART OF SEPTEMBER, SOME EXCESS DRAIN WATER FLOWED INTO THE MAIN DITCH AND FLOODED APPROXIMATELY FIVE ACRES.</p>										
II. <u>Shorebirds, Gulls and Terns:</u>										

(over)

(1)	(2)		(3)		(4)		(5)			(6)
III. <u>Doves and Pigeons:</u>										
Mourning dove	Last Period		5	3-19	Still Present		-	-	-	15
White-winged dove										
IV. <u>Predaceous Birds:</u>										
Golden eagle	"	"	1	2-12	"	"	-	-	-	1
Duck hawk										
Horned owl										
Magpie										
Raven										
Crow										
Sparrow Hawk	"	"	2	3-19	"	"	-	-	-	2
Red-Tailed Hawk	"	"	2	1-05	"	"	-	-	-	3
Marsh Hawk	"	"	4	2-12	"	"	-	-	-	6
Burrowing Owl	"	"	4	1-05	"	"	-	-	-	10
White-Tailed Kite	"	"	1	4-15	"	"	-	-	-	1
Reported by... R. Bruce Wiseman										

INSTRUCTIONS

- (1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiformes)
 II. Shorebirds, Gulls and Terns (Charadriiformes)
 III. Doves and Pigeons (Columbiformes)
 IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)
- (2) First Seen: The first refuge record for the species for the season concerned.
- (3) Peak Numbers: The greatest number of the species present in a limited interval of time.
- (4) Last Seen: The last refuge record for the species during the season concerned.
- (5) Production: Estimated number of young produced based on observations and actual counts.
- (6) Total: Estimated total number of the species using the refuge during the period concerned.

MIGRATORY BIRDS
(other than waterfowl)

Refuge... PINNEY N.W.R. ... Months of... MAY ... to... AUGUST ... 1957

(1) Species Common Name	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total Estimated Number
	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	
I. <u>Water and Marsh Birds:</u>										
PINNEY COMPLETELY DRY THIS REPORTING PERIOD										
II. <u>Shorebirds, Gulls and Terns:</u>										

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u>					
Mourning dove	Last Period	175	8-12	Still Present	- - - 200
White-winged dove					
IV. <u>Predaceous Birds:</u>					
Golden eagle	"	1	8-12	"	- - - 1
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					
Sparrow Hawk	"	1	5-24	"	- - - 2
Red-Tailed Hawk	"	2	6-05	"	- - - 2
Marsh Hawk	"	4	8-12	"	- - - 4
Hurrowing Owl	"	5	8-12	"	- - - 10
White-Tailed Kite	"	1	7-18	"	- - - 1
Rough-Legged Hawk	1	1	8/03	1	- - - 1
				Reported by	R. Bruce Wiseman

INSTRUCTIONS

- (1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiformes)
 II. Shorebirds, Gulls and Terns (Charadriiformes)
 III. Doves and Pigeons (Columbiformes)
 IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)
- (2) First Seen: The first refuge record for the species for the season concerned.
- (3) Peak Numbers: The greatest number of the species present in a limited interval of time.
- (4) Last Seen: The last refuge record for the species during the season concerned.
- (5) Production: Estimated number of young produced based on observations and actual counts.
- (6) Total: Estimated total number of the species using the refuge during the period concerned.

MIGRATORY BIRDS
(other than waterfowl)

Refuge PINNEY N.W.R. Months of SEPTEMBER to DECEMBER 1957

(1) Species Common Name	(2) First Seen		(3) Peak Numbers		(4) Last Seen		(5) Production			(6) Total Estimated Number
	Number	Date	Number	Date	Number	Date	Number Colonies	Total # Nests	Total Young	
I. Water and Marsh Birds:										
Great Blue Heron	1	10-5	2	11-2	Still Present		-	-	-	2
Sandhill Crane	32	11-15	55	12-21	"	"	-	-	-	75
II. Shorebirds, Gulls and Terns:										
Killdeer	2	10-5	7	11-15	"	"	-	-	-	10
Sandpiper Sp.	10	10-28	25	11-15	"	"	-	-	-	75
Marbled Godwit	3	11-15	3	11-15	3	11-15	-	-	-	3
Greater Yellowlegs	5	10-5	5	10-5	Still Present		-	-	-	5
Long-Billed Curlew	3	9-22	25	12-12	"	"	-	-	-	25
Dowitcher, L.B.	20	11-15	25	12-12	"	"	-	-	-	20
American Avocet	3	12-12	3	12-12	"	"	-	-	-	3

(1)	(2)	(3)	(4)	(5)	(6)
III. <u>Doves and Pigeons:</u>					
Mourning dove	Last Period	3	12-22	still present	- - - 10
White-winged dove					
IV. <u>Predaceous Birds:</u>					
Golden eagle	" "	1	11-15	1 11-15	- - - 1
Duck hawk					
Horned owl					
Magpie					
Raven					
Crow					
Sparrow Hawk	" "	1	12-22	Still present	- - - 1
Red-tailed Hawk	" "	1	12-22	" "	- - - 2
Marsh Hawk	" "	3	11-15	" "	- - - 4
Burrowing Owl	" "	4	11-15	" "	- - - 6
White-Tailed Kite	" "	2	11-15	" "	- - - 2
Rough-Logged Hawk	1 12-22	1	12-22	" "	- - - 1

Reported by..... H. Bruce Wiseman

INSTRUCTIONS

- (1) Species: Use the correct names as found in the A.O.U. Checklist, 1931 Edition, and list group in A.O.U. order. Avoid general terms as "seagull", "tern", etc. In addition to the birds listed on form, other species occurring on refuge during the reporting period should be added in appropriate spaces. Special attention should be given to those species of local and National significance. Groups: I. Water and Marsh Birds (Gaviiformes to Ciconiiformes and Gruiformes)
 II. Shorebirds, Gulls and Terns (Charadriiformes)
 III. Doves and Pigeons (Columbiformes)
 IV. Predaceous Birds (Falconiformes, Strigiformes and predaceous Passeriformes)
- (2) First Seen: The first refuge record for the species for the season concerned.
- (3) Peak Numbers: The greatest number of the species present in a limited interval of time.
- (4) Last Seen: The last refuge record for the species during the season concerned.
- (5) Production: Estimated number of young produced based on observations and actual counts.
- (6) Total: Estimated total number of the species using the refuge during the period concerned.

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 PIXLEY N.W.R. For 12-month period ending August 31, 1971

Reported by A. Bruce Wiseman Title Assistant Refuge Manager

(1) Area or Unit Designation	(2) Habitat		(3) Use-days	(4) Breeding Population	(5) Production
	Type	Acreage			
Pixley was completely dry this reporting period. The only use resulted from geese feeding on the desert grasses after the fall rains.	Crops		Ducks		
	Upland		Geese		
	Marsh		Swans		
	Water		Coots		
	Total		Total		
TOTAL REFUGE	Crops	0	Ducks	0	0
	Upland	4,110	Geese	12,000	0
	Marsh	0	Swans	0	0
	Water	0	Coots	0	0
	Total	4,110	Total	12,000	0
	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		
	Crops		Ducks		
	Upland		Geese		
	Marsh		Swans		
	Water		Coots		
	Total		Total		

(over)

INSTRUCTIONS

All tabulated information should be based on the best available techniques for obtaining these data. Estimates having no foundation in fact must be omitted. Refuge grand totals for all categories should be provided in the spaces below the last unit tabulation. Additional forms should be used if the number of units reported upon exceeds the capacity of one page. This report embraces the preceding 12-month period, NOT the fiscal or calendar year, and is submitted annually with the May-August Narrative Report.

(1) **Area or Unit:** A geographical unit which, because of size, terrain characteristics, habitat type and current or anticipated management practices, may be considered an entity apart from other areas in the refuge census pattern. The combined estimated acreages of all units should equal the total refuge area. A detailed map and accompanying verbal description of the habitat types of each unit should be forwarded with the initial report for each refuge, and thereafter need only be submitted to report changes in unit boundaries or their descriptions.

(2) **Habitat:** Crops include all cultivated croplands such as cereals and green forage, planted food patches and agricultural row crops; upland is all uncultivated terrain lying above the plant communities requiring seasonal submergence or a completely saturated soil condition a part of each year, and includes lands whose temporary flooding facilitates use of non-aquatic type foods; marsh extends from the upland community to, but not including, the water type and consists of the relatively stable marginal or shallow-growing emergent vegetation type, including wet meadow and deep marsh; and in the water category are all other water areas inundated most or all of the growing season and extending from the deeper edge of the marsh zone to strictly open-water, embracing such habitat as shallow playa lakes, deep lakes and reservoirs, true shrub and tree swamps, open flowing water and maritime bays, sounds and estuaries. Acreage estimates for all four types should be computed and kept as accurate as possible through reference to available maps supplemented by periodic field observations. The sum of these estimates should equal the area of the entire unit.

(3) **Use-days:** Use-days is computed by multiplying weekly waterfowl population figures by seven, and should agree with information reported on Form NR-1.

(4) **Breeding Population:** An estimate of the total breeding population of each category of birds for each area or unit.

(5) **Production:** Estimated total number of young raised to flight age.

UPLAND GAME BIRDS

Refuge PIXLEY N.W.R. Months of JANUARY to APRIL, 19 71

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
			Number broods obs'vd.	Estimated Total		Hunting	For Re- stocking	For Research		
Common Name	Cover types, total acreage of habitat	Acres per Bird			Percentage				Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Ring-necked Pheasant	Grasslands, willows and brushy thickets adjacent to Deer Creek 900 Ac.	9.0	0	unk.	20:1	None			100	PIXLEY Completely dry.

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

- | | |
|---------------------|--|
| (1) SPECIES: | Use correct common name. |
| (2) DENSITY: | Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks. |
| (3) YOUNG PRODUCED: | Estimated number of young produced, based upon observations and actual counts in representative breeding habitat. |
| (4) SEX RATIO: | This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available. |
| (5) REMOVALS: | Indicate total number in each category removed during the report period. |
| (6) TOTAL: | Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons. |
| (7) REMARKS: | Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested. |

* Only columns applicable to the period covered should be used.

UPLAND GAME BIRDS

Refuge PITILEY N.W.R.

Months of MAY

to AUGUST, 19 71

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
			Number broods obs'vd.	Estimated Total		Hunting	For Re- stocking	For Research		
Common Name	Cover types, total acreage of habitat	Acres per Bird			Percentage				Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Ring-necked Pheasant	Grassland, willows & brushy thickets Adjacent to Deer Creek - 900 Ac.	6.0	0	unk.	2:1 F:M	None			150	Pixley Completely Dry

* Only columns applicable to the period covered should be used.

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

- | | |
|---------------------|--|
| (1) SPECIES: | Use correct common name. |
| (2) DENSITY: | Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks. |
| (3) YOUNG PRODUCED: | Estimated number of young produced, based upon observations and actual counts in representative breeding habitat. |
| (4) SEX RATIO: | This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available. |
| (5) REMOVALS: | Indicate total number in each category removed during the report period. |
| (6) TOTAL: | Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons. |
| (7) REMARKS: | Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested. |

* Only columns applicable to the period covered should be used.

UPLAND GAME BIRDS

Refuge PIXIEY N.W.R.

Months of SEPTEMBER to DECEMBER, 19 71

(1) Species	(2) Density		(3) Young Produced		(4) Sex Ratio	(5) Removals			(6) Total	(7) Remarks
Common Name	Cover types, total acreage of habitat	Acres per Bird	Number broods obs'v'd.	Estimated Total	Percentage	Hunting	For Re- stocking	For Research	Estimated number using Refuge	Pertinent information not specifically requested. List introductions here.
Ring-Necked Pheasant	Grassland, Willows & Brushy thickets adjoining to Deer Creek - 900 Ac.	4.5	NONE		2M:1F	None			200 *	* Increase due to birds moving onto refuge during the hunting season. No hunting on refuge.

* Only columns applicable to the period covered should be used.

INSTRUCTIONS

Form NR-2 - UPLAND GAME BIRDS.*

- (1) SPECIES: Use correct common name.
- (2) DENSITY: Applies particularly to those species considered in removal programs (public hunts, etc.). Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottomland hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) YOUNG PRODUCED: Estimated number of young produced, based upon observations and actual counts in representative breeding habitat.
- (4) SEX RATIO: This column applies primarily to wild turkey, pheasants, etc. Include data on other species if available.
- (5) REMOVALS: Indicate total number in each category removed during the report period.
- (6) TOTAL: Estimated total number using the refuge during the report period. This may include resident birds plus those migrating into the refuge during certain seasons.
- (7) REMARKS: Indicate method used to determine population and area covered in survey. Also include other pertinent information not specifically requested.

* Only columns applicable to the period covered should be used.

(1) Species Common Name	(2) Density		(3) Removals					(4) Disposition of Furs					(5) Total Popula- tion	
	Cover Types & Total Acreage of Habitat	Acres Per Animal	Hunting	Fur Harvest	Predator Control *	For Re- stocking	For Re- search	Share Trapping			Total Refuge Furs Shipped	Furs Donated		Furs Destroyed
								Permit Number	Trappers Share	Refuge share				
San Joaquin Kit Fox	Atriplex, Desert Grasslands 4,140 ac.	258	-	-	-	-	-	-	-	-	-	-	-	16
Coyote	Same as above	828	-	-	-	-	-	-	-	-	-	-	-	5
Jackrabbit	Young willow stands along Deer Creek, & Desert lands. 4,140 ac.	14	-	-	-	-	-	-	-	-	-	-	-	300
Desert Cottontail	Young willow stands along Deer Creek & Desert lands. 1,000 ac	20	-	-	-	-	-	-	-	-	-	-	-	50
California Ground Squirrel	Uplands - Dikes, levees and along Deer Creek 3,000 ac.	10	-	-	-	-	-	-	-	-	-	-	-	300
Antelope Ground Squirrel	Same as above	60	-	-	-	-	-	-	-	-	-	-	-	50
California Vole	Grasslands, Brushy Trickets 3,000 Ac.	1.5	-	-	-	-	-	-	-	-	-	-	-	2,000

CONTINUED NEXT PAGE

* List removals by Predator Animal Hunter

REMARKS:

Pixley Completely Dry this period.

Reported by R. Bruce Wiseman

INSTRUCTIONS

Form NR-4 - SMALL MAMMALS (Include data on all species of importance in the management program; i. e., muskrats, beaver, coon, mink, coyote. Data on small rodents may be omitted except for estimated total population of each species considered in control operations.)

- (1) **SPECIES:** Use correct common name. Example: Striped skunk, spotted skunk, short-tailed weasel, gray squirrel, fox squirrel, white-tailed jackrabbit, etc. (Accepted common names in current use are found in the "Field Book of North American Mammals" by H. E. Anthony and the "Manual of the Vertebrate Animals of the Northeastern United States" by David Starr Jordan.)
- (2) **DENSITY:** Applies particularly to those species considered in removal programs. Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottom land hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) **REMOVALS:** Indicate the total number under each category removed since April 30 of the previous year, including any taken on the refuge by Service Predatory Animal Hunter. Also show any removals not falling under headings listed.
- (4) **DISPOSITION OF FUR:** On share-trapped furs list the permit number, trapper's share, and refuge share. Indicate the number of pelts shipped to market, including furs taken by Service personnel. Total number of pelts of each species destroyed because of unprime-ness or damaged condition, and furs donated to institutions or other agencies should be shown in the column provided.
- (5) **TOTAL POPULATION:** Estimated total population of each species reported on as of April 30.
- REMARKS:** Indicate inventory method(s) used, size of sample area(s), introductions, and any other pertinent information not specifically requested.

(1) Species	(2) Density	(3) Removals	(4) Disposition of Furs							(5) Total Popula- tion		
			Share Trapping			Permit Number	Trappers Share	Refuge share	Total Refuge Furs Shipped		Furs Donated	Furs Destroyed
Common Name	Cover Types & Total Acreage of Habitat	Acres Per Animal	Hunting	Fur Harvest	Predator Control *					For Re- stocking		
CONTINUED												
Deer Mouse	Grasslands, Brushy Thickets. 3,000 ac.	2.0	-	-	-	-	-	-	-	-	-	1,500
Kangaroo Rat <u>(D.n.nitratoides)</u>	Same above 3,000 ac.	30	-	-	-	-	-	-	-	-	-	100

* List removals by Predator Animal Hunter

REMARKS:

Pixley Completely dry this period.

INSTRUCTIONS

Form NR-4 - **SMALL MAMMALS** (Include data on all species of importance in the management program; i. e., muskrats, beaver, coon, mink, coyote. Data on small rodents may be omitted except for estimated total population of each species considered in control operations.)

- (1) **SPECIES:** Use correct common name. Example: Striped skunk, spotted skunk, short-tailed weasel, gray squirrel, fox squirrel, white-tailed jackrabbit, etc. (Accepted common names in current use are found in the "Field Book of North American Mammals" by H. E. Anthony and the "Manual of the Vertebrate Animals of the Northeastern United States" by David Starr Jordan.)
- (2) **DENSITY:** Applies particularly to those species considered in removal programs. Detailed data may be omitted for species occurring in limited numbers. Density to be expressed in acres per animal by cover types. This information is to be prefaced by a statement from the refuge manager as to the number of acres in each cover type found on the refuge; once submitted, this information need not be repeated except as significant changes occur in the area of cover types. Cover types should be detailed enough to furnish the desired information but not so much as to obscure the general picture. Examples: spruce swamp, upland hardwoods, reverting agriculture land, bottom land hardwoods, short grass prairie, etc. Standard type symbols listed in Wildlife Management Series No. 7 should be used where possible. Figures submitted should be based on actual observations and counts on representative sample areas. Survey method used and size of sample area or areas should be indicated under Remarks.
- (3) **REMOVALS:** Indicate the total number under each category removed since April 30 of the previous year, including any taken on the refuge by Service Predatory Animal Hunter. Also show any removals not falling under headings listed.
- (4) **DISPOSITION OF FUR:** On share-trapped furs list the permit number, trapper's share, and refuge share. Indicate the number of pelts shipped to market, including furs taken by Service personnel. Total number of pelts of each species destroyed because of unprime-ness or damaged condition, and furs donated to institutions or other agencies should be shown in the column provided.
- (5) **TOTAL POPULATION:** Estimated total population of each species reported on as of April 30.
- REMARKS:** Indicate inventory method(s) used, size of sample area(s), introductions, and any other pertinent information not specifically requested.

Refuge PINEY H.W.R.Year 19 71Botulism NONE OBSERVEDLead Poisoning or other Disease NONE

Period of outbreak _____

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	_____	_____

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 _____

Species affected _____

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

Number Recovered _____

Number lost _____

Source of infection _____

Water conditions _____

Food conditions _____

Remarks _____

NONAGRICULTURAL COLLECTIONS, RECEIPTS, AND PLANTINGS

(1)

Refuge PELLEY N.W.R. Year 19 71

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
NONE													

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

Remarks: _____

Total acreage planted:
 Marsh and aquatic _____
 Hedgerows, cover patches _____
 Food strips, food patches _____
 Forest plantings _____

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

Fish and Wildlife Service Branch of Wildlife Refuges

CULTIVATED CROPS - HAYING - GRAZING

Refuge PEALBY N.W.R. County TULARE State CALIFORNIA

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			
NOES									
							Fallow Ag. Land		

No. of Permittees: Agricultural Operations 0 Haying Operations 0 Grazing Operations 4

Hay - Improved (Specify Kind)	Tons Harvested	Acres	Cash Revenue	GRAZING	Number Animals	AUM'S	Cash Revenue	ACREAGE
				1. Cattle	665	1120.1	3,877.73	3,600
				2. Other				
				1. Total Refuge Acreage Under Cultivation				0
Hay - Wild	0	0	0	2. Acreage Cultivated as Service Operation				0

DIRECTIONS FOR PREPARING FORM NR-8
CULTIVATED CROPS - HAYING - GRAZING

Report Form NR-8 should be prepared on a calendar-year basis for all crops which were planted during the calendar year and for haying and grazing operations carried on during the same period.

Separate reports shall be furnished for Refuge lands in each county when a refuge is located in more than one county or State.

Cultivated Crops Grown - List all crops planted, grown and harvested on the refuge during the reporting period regardless of purpose. Crops in kind which have been planted by more than one permittee or this Service shall be combined for reporting purposes.

Permittee's Share - Only the number of acres utilized by the permittee for his own benefit should be shown under the Acres column, and only the number of bushels of farm crops harvested by the permittee for himself should be shown under the Bushels Harvested column. Report all crops harvested in bushels or fractions thereof except such crops as silage, watermelons, cotton, tobacco, and hay, which should be reported in tons or fractions thereof.

Government's Share or Return - Harvested - Show the acreage and number of bushels harvested for the Government of crops produced by permittees or refuge personnel. Unharvested - Show the exact acreage and the estimated number of bushels of grain available for wildlife. If grazing is made available to waterfowl through the planting of grain, cover, green manure, grazing or hay crops, estimate the tonnage of green food produced or utilized and report under Bushels Unharvested column.

Total Acreage Planted - Report all acreage planted, including crop failures.

Green Manure, Cover and Waterfowl Grazing Crops - Specify the acreage, kind and purpose of the crop. These crops and the acreage may be duplicated under cultivated crops if planted during the year, or a duplication may occur under hay if the crop results from a perennial planting.

Hay - Improved - List separately the kinds of improved hay grown. Annual plantings should also be reported under Cultivated Crops, and perennial hay should be listed in the same manner at time of planting.

Total Refuge Acreage Under Cultivation - Report total land area devoted to agricultural purposes during the year.

REFUGE GRAIN REPORT

1971

Refuge PIXLEY N.W.R.

Months of January through December

(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
NEGATIVE											

(8) Indicate shipping or collection points _____

(9) Grain is stored at _____

(10) Remarks _____

*See instructions on back.

(10) Remarks

NR-8a

(8) Grain is stored at

REFUGE GRAIN REPORT

(8) Indicate shipping or collection points

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

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

- (1) List each type of grain separately and specifically, as flint corn, yellow dent corn, square deal hybrid corn, garnet wheat, red May wheat, durum wheat, spring wheat, proso millet, combine milo, new era cowpeas, mikado soy beans, etc. Mere listing as corn, wheat, and soybeans will not suffice, as specific details are necessary in considering transfer of seed supplies to other refuges. Include only domestic grains; aquatic and other seeds will be listed on NR-9.
- (3) Report all grain received during period from all sources, such as transfer, share cropping, or harvest from food patches.
- (4) A total of columns 2 and 3.
- (6) Column 4 less column 5.
- (7) This is a proposed break-down by varieties of grain listed in column 6. Indicate if grain is suitable for seeding new crops.
- (8) Nearest railroad station for shipping and receiving.
- (9) Where stored on refuge: "Headquarters granary," etc.
- (10) Indicate here the source of grain shipped in, destination of grain transferred, data on condition of grain, unusual uses proposed.

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

DATE	OF GRAIN RECEIVED ON HAND	GRAIN RECEIVED	TOTAL	GRAIN DISPOSED OF			TOTAL	GRAIN ON HAND	GRAIN ON HAND		REMARKS
				BY	TO	FOR			GRAIN	ON HAND	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	

REFUGE GRAIN REPORT

ANNUAL REPORT OF PESTICIDE APPLICATION

PILLEY N.W.R.

Proposal Number

Reporting Year

1971

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)
Negative								

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