

NARRATIVE REPORT

SALTON SEA NATIONAL WILDLIFE REFUGE

BRAWLEY, CALIFORNIA

November, 1940 to January, 1941

Submitted by

**LUTHER C. GOLDMAN
Jr. Refuge Manager**

TABLE OF CONTENTS

	<u>Page</u>
I. GENERAL	
A. Weather conditions - - - - -	1
B. Water conditions - - - - -	1
II. WILDLIFE	
A. Waterfowl- - - - -	2
B. Waterfowl seen during quarter- - - - -	3
C. Crop damage and its control- - - - -	3
D. Botulism- - - - -	4
E. Other birds - - - - -	5
III. PUBLIC RELATIONS	
A. Recreational uses - - - - -	5
1. Local hunting- - - - -	5
2. Visitors to Refuge - - - - -	6
B. Violations- - - - -	7
IV. BIRD BAND RECOVERIES - - - - -	8
V. PHOTOGRAPHS	

*

I. GENERAL

A. Weather Conditions.

	<u>Cloudy days</u>	<u>Precipitation</u>	<u>Max. temp.</u>	<u>Min. temp.</u>
<u>November</u>	3	.05	91°	36°
<u>December</u>	13	2.32	89	28
<u>JANUARY</u>	<u>10</u>	<u>.93</u>	<u>75</u>	<u>36</u>
Total	26	3.30	Extremes 91°	28°

Records given above were obtained from the U. S. Weather Bureau station at El Centro, California (14 miles distant).

No storms like the one of September, 1939, occurred this year, but the precipitation for this quarter totaled 3.30 inches of the seasonal rainfall of 4.97 inches. Thus it can easily be seen that the heaviest rainfall of the year occurred during this period.

There were only 11 cloudy days during the same months last year as compared with 26 this year. The extreme high temperature was 92° this quarter. ^{Last season, 91°.} The extreme low temperature of 28° occurred in both periods.

B. Water Conditions

The Salton Sea was lower during the month of November 1940 than at the same time last year, but rains and waste water during January have caused it to rise again. It is understood from information gathered at the headquarters of the Imperial Irrigation District, that the Salton Sea has risen 7 feet in the last 20 years, and will continue to rise during the next 3 years. At the end of that time, however, the All-American Canal will be in operation, and the Coachella Branch of the All-American Canal along the north shore (under construct-

(ion at present) will be completed. According to officials of the Imperial Irrigation District, when the complete system is under operation the level of the Salton Sea can be expected to be stabilised.

II. WILDLIFE

A. Waterfowl

The main flight of ducks that winter on the Salton Sea area did not arrive until just after the Armistice Day cold snap in the states to the north. The diving ducks, redhead, canvasback, and scaup were noted in good numbers for the first time on November 13. In general, the duck numbers were noticeably increased over the previous November-January quarter.

On the 8th of December approximately 3000 snow geese joined the little bunch of about 200 that had been here since the last of October. By the end of January, close to 8000 snow geese were using the refuge and vicinity.

Cattails were utilized as an article of food, and patches several feet in circumference were cut down by these birds at the delta of the New River. It was strange to see flocks of snow geese picking up grits in the dry desert two miles from the Salton Sea. Flights out to the desert near Sandy Beach were noticed regularly at about 4:00 P.M. in the day.

In early December, hunters bagged eight or ten snow geese that were found to be in a very poor condition. They looked like normal, healthy birds in outward appearance, but handling showed that they were very thin and bony, and light in weight. Since these birds were shot about the same time that an influx of snow geese occurred on the refuge,

it was supposed that their wasted condition was the result of an extended flight from some point far to the north. However, Mr. Peter Van Huizen informed me that he noticed snow geese on the Sacramento Refuge that were not feeding properly, and consequently were in poor condition. It is reasonable to assume that some of the geese shot here during early December had come from the Sacramento Refuge.

No change was noticed in the white-fronted geese over last year, but the Canada geese were here in smaller numbers. It was estimated that 500 Canada geese spent the winter in 1959, but only about 300 this winter.

Ducks and geese are most numerous on the Refuge and vicinity from the middle of December through January and the first part of February.

Fifty-six whistling swans visited Imperial Valley on December 7. This is the largest number of swans that has ever been recorded in the Valley, according to local observers.

B. Waterfowl seen during quarter

Waterfowl species observed during the period in this report included the following:

Mallard	American pintail	Bufflehead
Gadwall	Redhead	Ruddy duck
Baldpate	Canvasback	Whistling swan
Green-winged teal	Greater scaup	Lesser snow goose
Cinnamon teal	Lesser scaup	White-fronted goose
Shoveler	Ring-necked duck	Canada goose

C. Crop damage and control

Duck crop damage continued, but complaints were less frequent. A spotlight scaring device was brought into use by a California State Fish and Game employee on several farms where ducks were accustomed to feeding,

with evident good results. The device is a simple one, composed of a storage battery, a clock, a small electric motor, and an automobile spotlight. It can be regulated to light at intervals during the night. For example, it can be set to go on approximately one minute out of every ten from 5:00 P.M. to 6:00 A.M. A piece of copper wire on the hands of the clock makes contact with wires from the small motor (placed at intervals around the clock face). When a hand of the clock passes over a wire from the motor, the light will revolve as long as the wires are in contact, and automatically stops with the motor as the clock hand carries the contact wire beyond the wire from the motor. The spotlight ordinarily makes about three or four complete revolutions at each contact. One of the lights, operating in a 41-acre field of alfalfa, kept the ducks away so that the farmer realized his first crop of alfalfa in several seasons. This particular light was operated from a power line which, complete with the soaring device, cost about \$100.00. The device costs about \$50.00 to build. Perhaps the ducks will become accustomed to the light after its continued use in one spot. At any rate, its use has greatly appeased the wrath of the local farmers in Imperial Valley this year. Some complaints continued to come in from rice farmers west of Imperial, California. Both tracer bullets and aerial bombs were used here to good advantage in keeping the ducks out of the rice fields. In spite of this, some loss was reported. An effort has been made by farmers to lease 10,000 acres for rice growing from the Imperial Irrigation District, and it is expected that next fall many more acres in rice will need to be protected from waterfowl depredations.

D. Botulism

The Salton Sea area has apparently escaped botulism this year. It may be that the continued rise in water levels has had beneficial results

in the control of botulism here.

E. Other birds

Birds observed on the Refuge or in the vicinity and not reported before include the American osprey, American eagle, junco, and western bluebird.

An annotated bird list for species occurring in the Refuge area will be prepared sometime in the future.

A study specimen of an immature bald eagle was made on January 13. The bird was killed by a farmer who claimed it had been stealing his lambs several miles east of Calipatria. The stomach contents showed it had been feeding on mullet fish. A study specimen of an American bittern was made on January 16. This bird was found dead on the Calipatria-Brawley highway.

The Christmas Bird Census was taken on December 22, when 80 species were recorded for the day (two more than the census for the preceding year). The 15-mile radius in which the census was taken included parts of the Salton Sea National Wildlife Refuge, Imperial State Game Refuge, and their vicinities. 213,742 individuals were counted. Pintail and baldpate ducks made up the greater part of the total number.

A list of bird species observed on the Lower Colorado was prepared for Mr. Allan Blout of the Bureau of Reclamation Service at Yuma, Arizona upon his request.

III. Public Relations

A. Recreational Uses

1. Local hunting

Many hunters from numerous places in southern California came down to Imperial Valley for the duck shooting. The hunting season as a whole was better than the 1939 season. Season bag limit records were kept for

21 hunters living in Brawley. These men hunted for the most part in the vicinity of the Salton Sea. Their records show that 350 ducks and 42 geese were killed during 233 hunting days. This makes a daily average of 1.7 birds per hunter. The length of the hunting day was restricted, in most cases, to only two or three hours, since many of these men had to report for work at 8:00 or 9:00 A.M.

(Note)

One hunting tragedy occurred during the last day of the open season when a woman accidentally shot and killed her husband who was in a blind only a few feet from her own.

2. Visitors to Refuge

<u>NAME</u>	<u>ADDRESS</u>	<u>DATE</u>
<u>Mr. Neil Hotchkiss</u> <i>EXPERIMENTAL QUARTERS</i>	Washington, D. C.	11/1-2/40
<u>Warden Walter Shannon</u>	Julian, Calif.	11/7/40
<u>Agent Alvin W. Elder</u>	Los Angeles, Calif.	11/2-3/40, 12/7-8/40 12/12-13/40
<u>Capt. L. T. Ward</u>	Calif. Div. Fish & Game	11/7/40
<u>Mr. Lewis W. Walker</u> <i>photoed</i>	Natural History Museum San Diego, Calif.	11/16-17/40
<u>Mr. and Mrs. Ralph Chase and daughter</u>	Huntington Park, Calif.	11/20-21/40
<u>Mr. James Murdock</u>	Glendale, Calif.	11/22/40, 12/22/40
<u>Mr. and Mrs. Bert Harwell and son</u>	Berkeley, Calif.	11/24/40
<u>Mr. Sidney D. Platford</u>	Los Angeles, Calif.	12/7/40
<u>Mr. Frank Chuman</u>	Los Angeles, Calif.	12/22/40
<u>Mrs. Eneard</u>	Huntington Park, Calif.	1/3/41
<u>Mrs. Richardson</u>	Berkeley, Calif.	1/3/41
<u>Mr. and Mrs. William F. Atkinson and daughter</u>	Scarsdale, N. Y.	1/3/41

<u>NAME</u>	<u>ADDRESS</u>	<u>DATE</u>
<u>Mr. Herbert N. McCoy</u>	Los Angeles, Calif.	1/18/41
<u>Mr. Walter W. Bennett</u>	Los Angeles, Calif.	1/18/41
<u>Mr. Paul T. Kreager</u> ^{supv. 121060}	Portland, Oregon	1/18/41
<u>Mr. and Mrs. A. F. Healy</u>	Coronado, Calif.	1/21/41
<u>Mr. Luther J. Goldman</u> ^{(Luther's Uncle) Flyway Biol.}	Berkeley, Calif.	1/22/41
<u>Mr. Russell Reedy</u>	State Game Refuge	} (Numerous calls)
<u>Mr. Robert Hart</u> ^{Biol.}	Calipatria, Calif.	
<u>Warden H. A. Mackey</u>	Brawley, Calif.	
<u>Sportsmen and Farmers</u>		

B. Violations

Little trouble developed with trespassers on the Refuge during the hunting season. The refuge manager cooperated with Mr. Alvin W. Elder and State officers in patrolling the refuge area and vicinity.

1. A notice was posted at Duckels Gun Club (private club) concerning baited duck ponds. Notice was not taken down until 2nd week of hunting season. No effort was made to hunt on this club until the notice was taken down.

2. Mr. Fred S. Salling, Rosewood, Calif. was arrested for shooting protected shore birds. Judge Grubke, Calipatria, fined him \$25.00, but suspended the sentence.

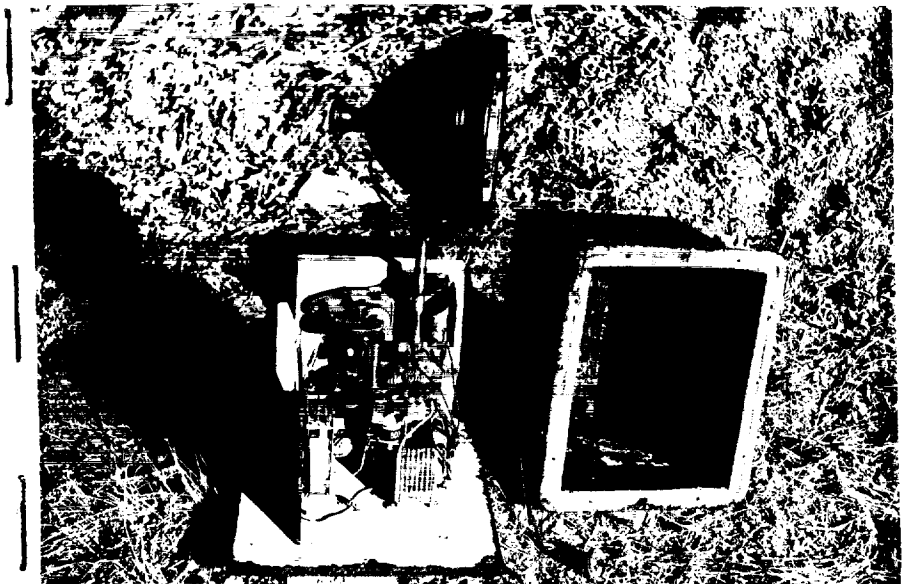
3. Mr. Phil Jones was taken before Judge Tullis, Imperial, for shooting doves from automobile, but case dismissed for lack of evidence. (Mr. Elder hopes to refer this case to Federal Court).

4. Mr. Juan Rodriguez paid \$25.00 fine to Judge Bailey for shooting mourning doves with rifle out of season and from an automobile. His rifle was confiscated.

IV. BIRD BAND RECOVERIES

Hunters brought in two bird bands, one from a green-winged teal (#38-514896) shot October 17, 1940, and one from a pintail (#523143) shot November 24, 1940. Information as to where and when these birds were banded has not been received by this office as yet.

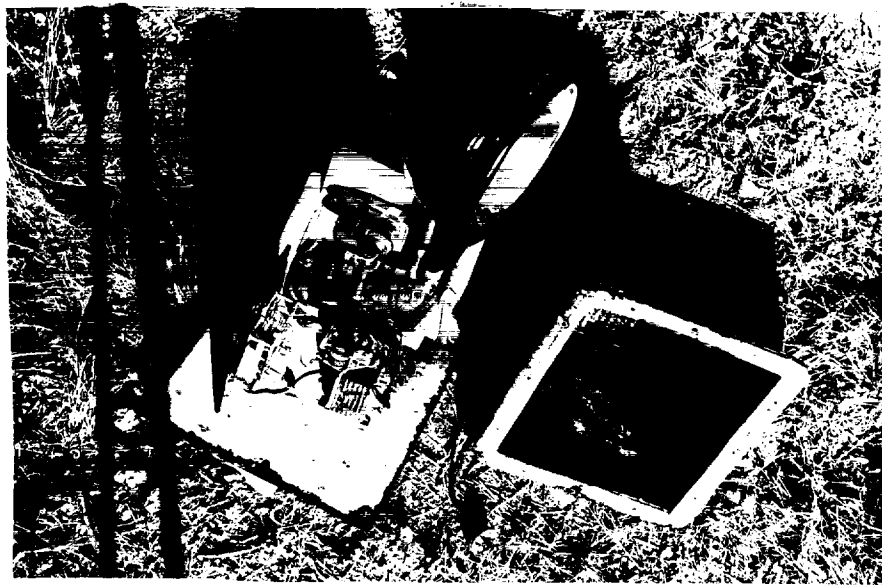
One banded Canada goose, taken by San Diego Natural History Museum collectors on February 4, 1941, in the vicinity of the Refuge, is now mounted and used in the Salton Sea group at the Museum. This bird was banded on July 5, 1940 (39-821599) at Bear River Refuge. The San Diego Natural History Museum is going to exhibit this bird as one of a wedge of geese. The band was left on the bird as part of an "educational feature illustrating the work of bird banding, which has proved such an important factor in throwing light on the mysterious travels of birds." (Natural History Museum Bulletin)



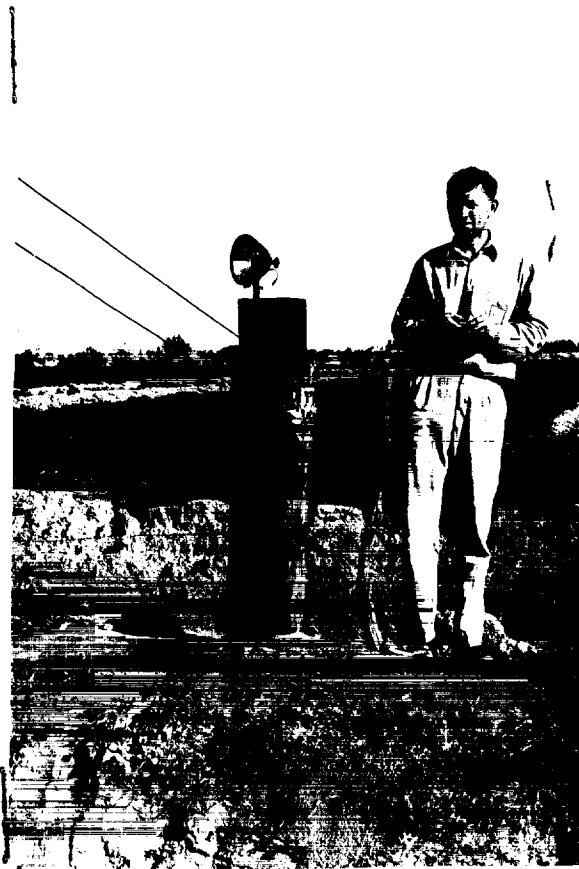
An ingenious revolving spotlight device
for frightening ducks from farm crops.
Picture taken 12/26/40



Close up showing mechanism
Picture taken 12/26/40



Looking down into mechanism
Picture taken 12/26/40



Revolving light in position.
Power line furnishes power in this
case, but storage battery can be used.
Picture taken 12/26/40



We cooperate with the State Conservation Dept. in releasing 190 adult pheasants in Imperial Valley. Picture taken 11/27/40



Frank Bonham, local sportsman, holds a healthy cock pheasant prior to its release. Picture taken 12/27/40



Snow geese rising from desert
near Sandy Beach where they sometimes
go for grits. Picture taken 12/6/41



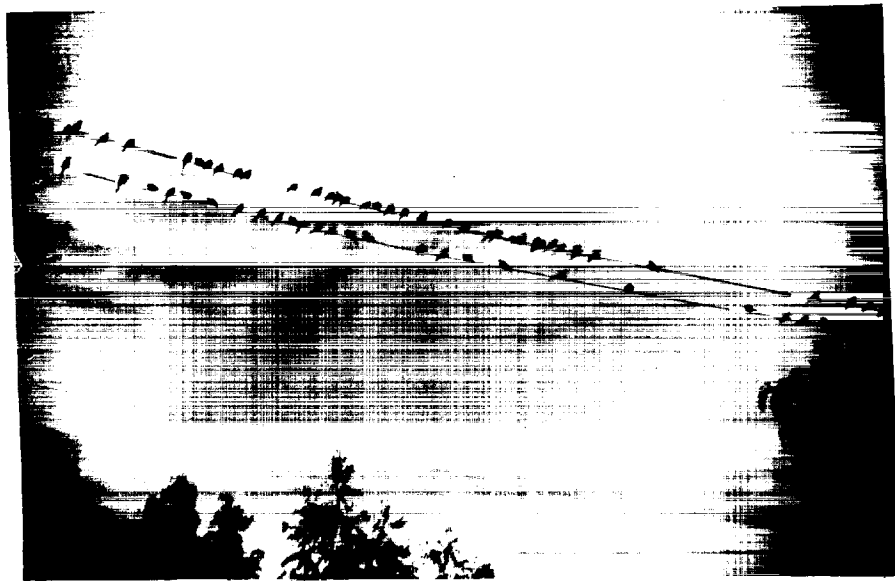
Long-billed dowitchers gather in
large flocks on the Salton Sea Refuge
during the winter. Picture taken 12/20/40



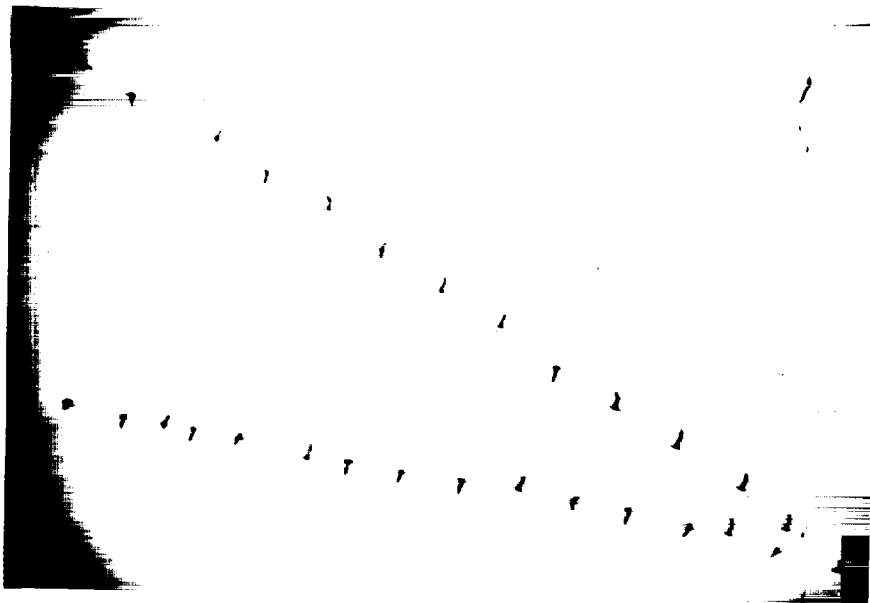
The season in which botulism ordinarily breaks out passed without its occurrence on the area. Only a few sick gulls were found. Picture taken 12/20/40



This immature bald eagle had a wing-spread of 7 feet, 1 inch. State Game employees, Russell Reedy and Bob Hart are holding the bird. Picture taken 1/12/41



Mourning doves gather on telephone wires. No increase was noticed in dove numbers over preceding winter. Picture taken 1/6/41



Snow geese in V-formation over Refuge. Picture taken 12/6/41