

NARRATIVE REPORT

SALTON SEA NATIONAL WILDLIFE REFUGE

BRAWLEY, CALIFORNIA

August to October, 1941

Submitted by

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Jr. Refuge Manager

Note: The author was not present on the Salton Sea Refuge during August and the first half of September (with the exception of an occasional day's trip), having been stationed at Yuma, Arizona, for summer work.

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I. GENERAL WEATHER CONDITIONS

	<u>Cloudy days</u>	<u>Precipitation</u>	<u>Average Max. temp.</u>	<u>Average Min. Temp.</u>
<u>August</u>	4	1.66	104°	75°
<u>September</u>	2	.55	102°	64°
<u>October</u>	2	.51	85°	56°
Total	8	2.72		

Imperial Valley received a good rain on the 10th of August, when 1.03 inches fell during 24 hours. One hundred and fourteen degrees was the hottest day recorded for this month, while 65° was the lowest temperature reading.

September temperatures were generally lower this year compared with last year. The highest reading showed 110°, and the lowest temperature was 54°. On the 28th, approximately $\frac{1}{2}$ inch of rain fell, and as usual turned the adobe roads into a gummy mire which prevented travel for several hours until sunshine and wind could dry them sufficiently.

October started with the first day's temperature registering 104°, but the rest of the month was considerably cooler. The .51 inches of rain on October 12th brought the season's total rainfall to 2.72, as compared with .92 on the same day last year. (Records were obtained from Brawley Weather Station).

II. WILDLIFE

A. Waterfowl

General mild weather in northern California and points north held back the main movements of ducks and geese to Imperial Valley this quarter. The refuge manager was present on the refuge during July and August and the first half of September on only one or two occasions, and exact dates of early arrivals of migrant waterfowl could not therefore be recorded. On a trip to Imperial Valley on August 1, seven cinnamon teal were observed on the north east corner of the refuge. The first migrants of pintails of any number were noticed by the refuge manager on September 21, when about 1,500 were seen feeding in milo maize stubble 7 miles from the refuge. White-fronted geese were seen for the first time on September 27. About 300 came to the refuge. By October 9, small flocks of pintails, baldpates, shovellers, green-winged teal, and cinnamon teal were noticed in the marshy areas along the south border of the refuge.

Approximately 6,000 ruddy ducks in one raft were noted on the refuge $3\frac{1}{2}$ miles from Sandy Beach on October 14. Mr. L. J. Goldman and the refuge manager estimated 25,000 ducks of all species on the refuge on the opening day of hunting season here. As usual, ducks moved in from northern points of the state as the hunting season started. Many of these birds, when frequently fired at in the fresh water marsh areas off the refuge, will move out to deeper, salt water on the refuge, or will, as do many pintails and baldpates, move away

from the area entirely in search of fresh water where they wont be harrassed. Some of these ducks will go on down to Mexico. Many of them stay at Imperial State Game Refuge, near Calipatria, where they rest on fresh water from the Alamo River and then go out in the rice and alfalfa fields to feed at nights. The refuge manager of the State Refuge estimated 50,000 ducks (mostly baldpates and pintails) on his area by October 28.

As many as 300 fulvous tree ducks remained in Imperial Valley through October and it was not uncommon to find one or more in a hunters's bag. The rice fields near Imperial and the private gun clubs in the Rockwood area were most attractive to this species.

No increase in duck population was noticed during this quarter over last year, but it is felt that many birds that ordinarily would have moved in by the last of October had not arrived yet because of the very mild weather in the north.

Pintail, green-winged teal, shoveller, baldpate, cinnamon teal, redhead, scaup, fulvous tree ducks were found in hunters' bags, with the pintail most abundant and the others in successively smaller numbers. Only two small flocks of Canada geese, totaling 53 birds, used the area up to the end of October, and 322 white-fronted geese were the most of this species seen. No more than 200 snow geese were noted at any one time during October. (Numbers of ducks and geese increase during the months from November through January.)

B. Shorebirds

The Alamo River, shifted recently from an old channel to its new channel, has poured a large silt load in the Salton Sea and has built up such a delta that the river has backed up and is now breaking over its west bank. However, this silt apron, which is approximately 300 yards wide and 150 long and slopes gradually into the Salton Sea, is used extensively by several species of shorebirds that gather there in large numbers. Ducks and geese also make use of the delta. Species noted here include the following: black-bellied plover, long-billed curlew, red-backed sandpiper, least sandpiper, western sandpiper, marbled godwit, avocet, black-necked stilt, herring gull, and ring-billed gull.

The solitary sandpiper was observed on the refuge for the first time on August 31. Thirteen individuals of this species were feeding in a flooded area on Section #2, T. 12 S., R. 12 E.

C. Fish

The Alamo River, flowing through the break in its banks, is spreading over a half-mile radius and entering the Salton Sea at several points rather than in one stream. The break occurred approximately $\frac{1}{4}$ mile from the south boundary of Section #8, R. 13 E., T. 11 S. A great number of mullet have been stranded or caught in shallow ponds where the river has been flowing over such a wide area. Many of these fish are caught by hand by transient farm laborers from Calipatria, California (11 miles distant), and are used for food. Pelicans and egrets have been feasting on the smaller species to be found in the shallow water.

III. REFUGE MAINTENANCE AND DEVELOPMENT

A. Physical development

Forty new Service boundary markers and warning signs were put up, and in a number of cases, new posts, both metal and wood, were placed. In some places, where use of a boat was impossible, signs and posts were carried in more than a mile through dense cover over marshy ground. In locating old markers in isolated places of heavy growths of cattail and tamarisk, a "Brunton's Compass", borrowed from the Bureau of Reclamation, was used to advantage.

B. Collections

One black-crowned night heron, taken from violator by State authorities, was prepared for use in court as evidence, and is now in refuge collection.

IV. PUBLIC RELATIONS

A. Recreational uses

1. Hunting

An effort was made to familiarize the local ^{hunters,} and hunters coming in from all points of Southern California, with the federal regulations, shooting hours, and maps showing the refuge boundaries. A large number of hotels, service stations, and sporting goods stores in the Imperial Valley cooperated in putting up letter-size maps of the refuge and distributing regulatory literature. The Imperial Valley Conservation Association assisted in spreading information, and discussions were held with the state game warden and federal refuge manager in attendance.

Many hunters came with trailers and were equipped to stay for several days' shooting. Boats of all shapes and descriptions were

brought into use for getting around in the marsh areas. In one case, a duck blind was built just 60 yards from the east boundary of Section #4, T. 11 S., R. 13 E. Hunting was only fair during October. Mild weather in California was not conducive to good shooting.

2. Visitors

As usual during the fall and winter seasons at the Salton Sea Refuge, numerous hunters called at refuge headquarters and farmers complaining of crop damage made their visits. Other visitors include Service members as follows:

September 21. Earl Sanders, Trainee stationed at Yuma, Arizona, and Mrs. Sanders.

October 5. Mac T. Finley, Clerk Patrolman at Yuma, Arizona, visited the refuge to observe birdlife.

October 14-16. Luther J. Goldman, Pacific Flyway Biologist, visited the refuge for fall waterfowl observations on his way down to Mexico.

October 26-30. Roland J. Schaar, Assistant Land Valuation Engineer from Portland Office, visited the refuge for examination and appraisal of a proposed land addition.

3. Violations

The refuge manager cooperated with the federal game management agent, state warden, and county wardens in patrol work. Also cooperated with deputy sheriff at Mullet Island in getting information and evidence for later conviction of three violators who had shot 8 long-billed dowitchers and 2 avocets. One of these men did not have

a hunting license. Their cases were turned over to Agent Elder.

No violators were apprehended during this quarter on the Salton Sea Refuge.

V. OTHER ITEMS

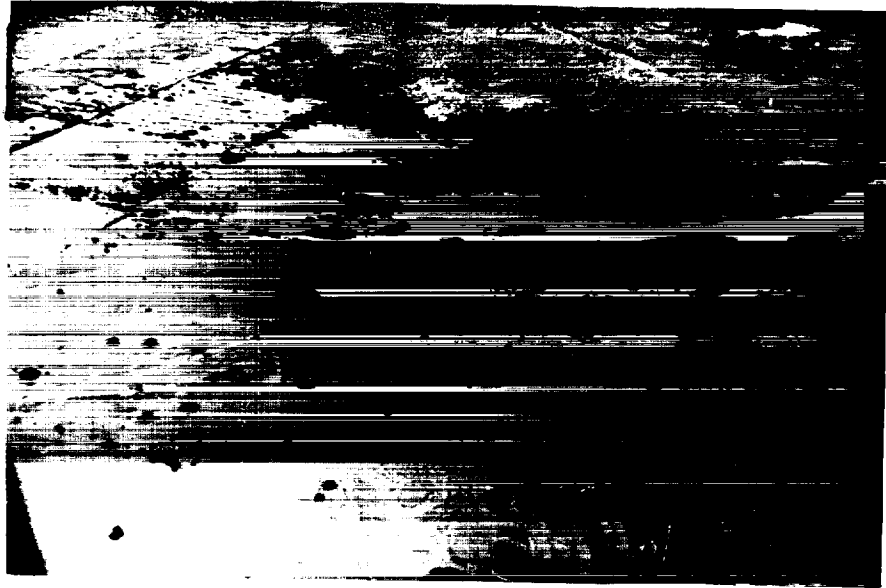
A. Waterfowl attracted to new rice fields

As anticipated, the increased acreage planted to rice attracted large numbers of waterfowl, and damage complaints came in as early as September 29. After October 16th, when the hunting season opened, no more complaints were heard from the ranchers. Hunters were allowed to shoot in the fields to keep the birds on the move during the daytime, and on moonlight nights when the birds were inclined to nocturnal feeding, the ranchers hired herders at about 35¢ per hour to keep the birds from landing.

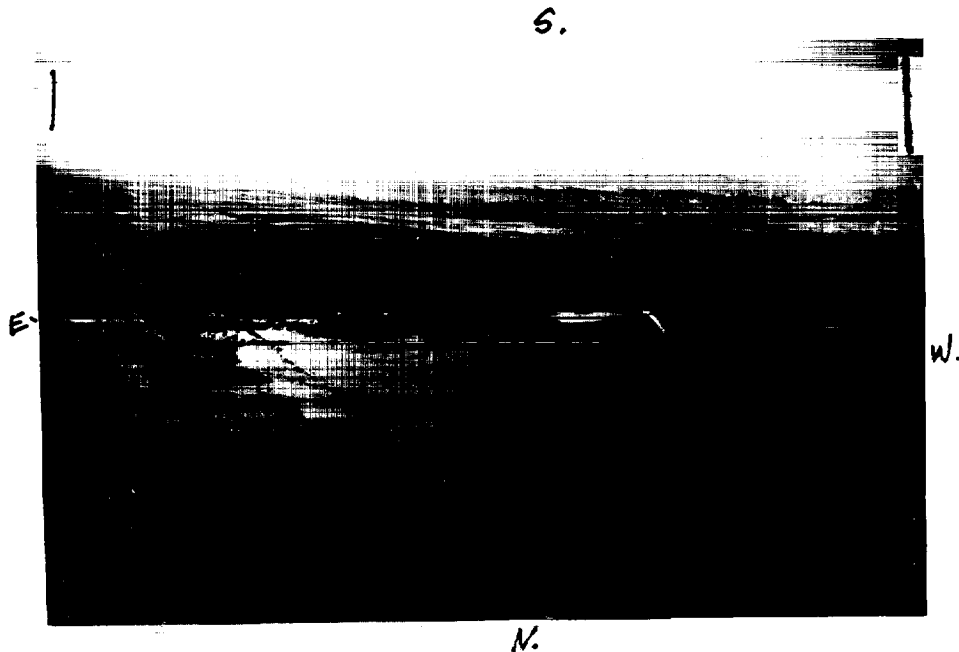
Mr. Robert Hart, employee of the State Fish and Game Department, was again sent down to the Valley to assist ranchers in controlling duck crop damage from thousands of ducks that spend the winter here. Mr. A. W. Elder sent bombs down for Mr. Hart's use. Mr. Hart already has been furnished with an Army rifle and tracer bullets for waterfowl herding. Herding permits were issued to 3 rice growers of El Centro, California, during the latter part of October.

B. Unusual bird record for Imperial Valley

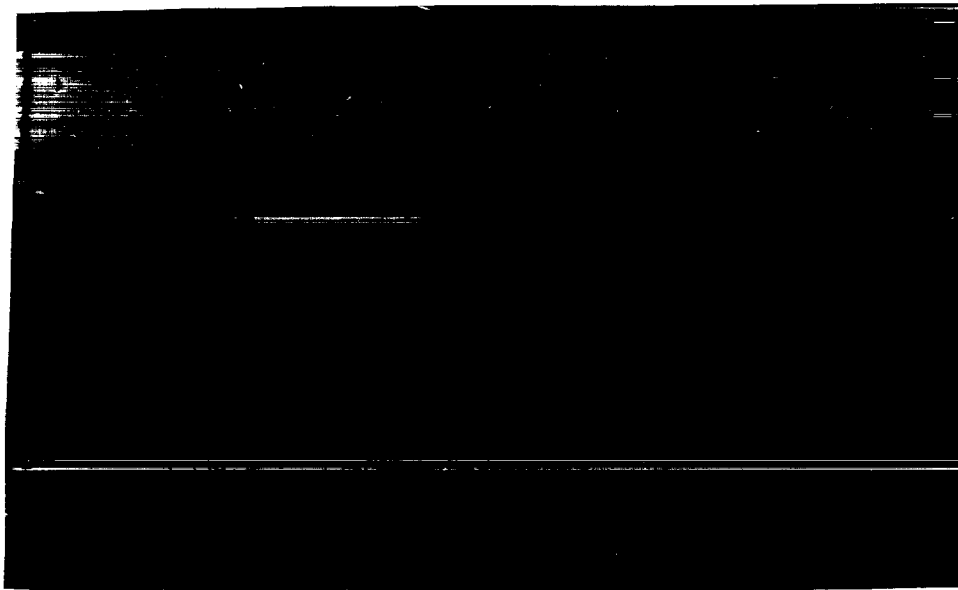
It is interesting to note that a band^d-tailed pigeon was shot during the open season for dove hunting in Imperial Valley. This bird was taken at 10 a.m. on Ash Canal just 3 miles north of the Mexican border and 7 miles east of Calexico, California. This is the first record of band-tailed pigeons occurrence in Imperial Valley known to the refuge manager.



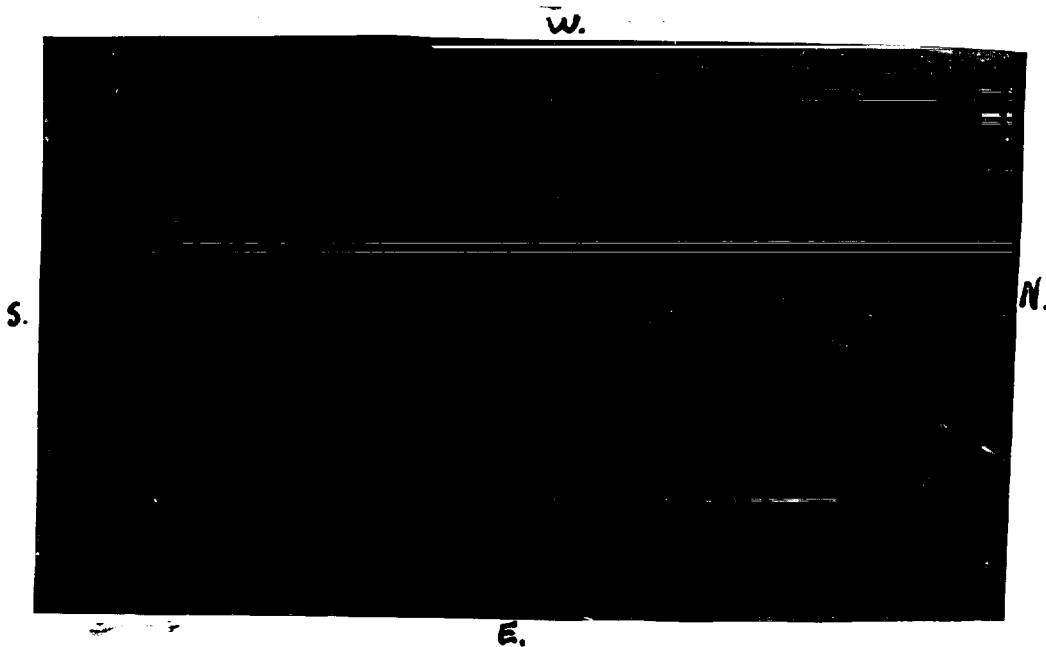
Delta of New River. (Dark round spots and dark vegetation are cattail growth.) Picture taken 10/15/41.



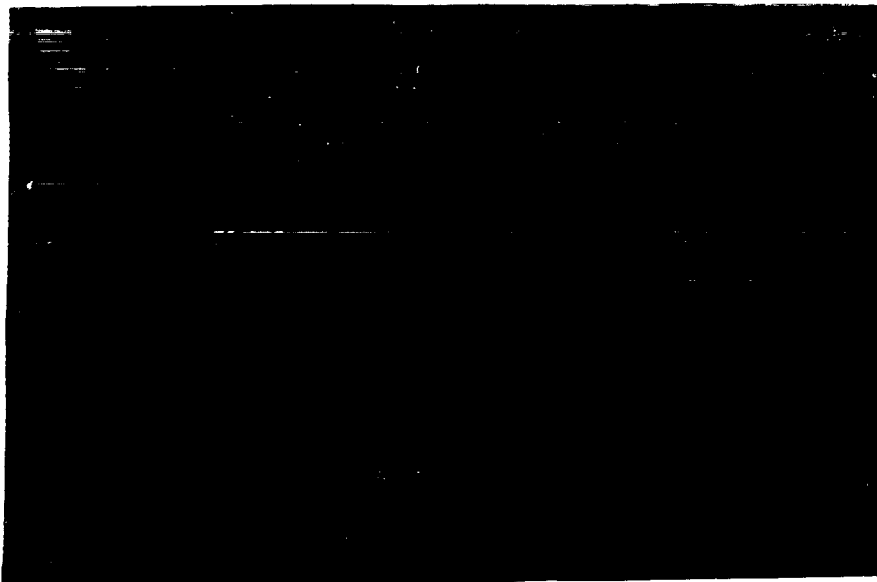
Delta of New River. Water flooding over Sections 11, 12, 1, and 2. Myers' "Lost Hours" ranch shack in mid foreground at S.E. corner of Section #2, 12-12. Picture taken 10/15/41.



The Alamo River has silted in solid for a distance of about a mile from where it emptied into the Salton Sea. Now it is breaking over its west bank about $\frac{1}{2}$ mile from refuge boundary. Arrow indicates direction river took before break. Picture taken 10/15/41.



View from air showing break, and dike built by Imperial Irrigation District to keep flow going through this break. An old river channel is indicated by the arrows. Picture taken 10/9/41.



White pelicans in flight over new delta of Alamo River. Picture taken 10/15/41.



Silt deposit at mouth of Alamo River that caused backing up of water and final break in bank. Picture taken 10/9/41.