

QUARTERLY NARRATIVE REPORT
ARANSAS MIGRATORY WATERFOWL REFUGE

AUGUST

SEPTEMBER

OCTOBER

1939

THE INTERIOR
UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

OFFICE OF REGIONAL DIRECTOR

402 FEDERAL BUILDING, P. O. BOX 1306
ALBUQUERQUE, NEW MEXICO

REGION No. 3

ARIZONA
NEW MEXICO
OKLAHOMA
TEXAS

ADDRESS REPLY TO
REGIONAL DIRECTOR
AND REFER TO

November 25, 1939

Chief, Bureau of Biological Survey,
Washington, D. C.

Dear Dr. Gabrielson:

We are enclosing the Aransas Migratory Water-
fowl Refuge report for the period ending October 31st.

We have requested Mr. Stevenson to submit the
grain report which is supposed to accompany this
report.

Very truly yours,

JOHN C. GATLIN
Regional Director,

By *George E. Barclay*
George E. Barclay,
Assistant Refuge Manager.

Encl. 67745



NARRATIVE REPORT
ARANSAS MIGRATORY WATERFOWL REFUGE
AUGUST---OCTOBER, 1939

I. General Conditions.

Mild, comparatively dry weather was experienced this period. Local residents ~~that~~ ^{state} that we are in the third year of "drouth" but then, they haven't experienced true drouth conditions. Two dry "northers" in October brought sharp drops in temperature with an influx of doves and ducks. September rainfall filled Shallow Lake which became a haven for dabbling ducks. A number of wells and adjacent overflow ponds were dry in August but wells were later repaired and with rainfall provided adequate water for cattle and wildlife. There were few fresh water ponds on the refuge this autumn outside of cattle tanks and these attracted hundreds of ducks and geese. The last week in October about 500 Canada Geese, 100 puddle ducks, 100 sandhill and 6 whooping cranes were watering at an overflow pool at the Artesian Well, Mustang Slough.

The range was in good condition, considering lack of rainfall, and a good crop of calves was reared. There were excellent stands of grass for cattle and deer in the beds of "wet-weather" lakes. About the middle of September, screw worms began to attack cattle and deer. This is correlated with wet weather of September. A number of deer, badly infested with screw worms and no doubt doomed, were observed.

Rainfall record, obtained at Austwell, follows: August- 23rd, .55 in. total-.55 in. September-10th, 1.10; 11th, .54; 12th, .15; 16th, .03; 17th, 1.45; 18th, .02; 19th, .17; 28th, .05; 29th, .03; 30th, .02; total 3.56 in. October- 11th, 1.98 in.; 13th, .03; total 2.01 in.

Average for a 20 year period at Austwell is: August- 1.76 inches, September- 4.93 inches, and October-4.17 inches.

II. Wildlife.

A. Waterfowl

With mild weather, heavy concentrations of ducks were reported from rice fields of east Texas and no large flights of ducks were observed

W.W.

in the refuge or vicinity. Pintails, in numbers, made an unusually early appearance as did Canada and white-fronted geese. Local farmers believe that the total number of geese around Austwell the last of October was 50% greater than in 1938. No ducks were observed in St. Charles or Mud bays October 27 and only 2 gadwall that day in Mesquite Bay. About 30,000 geese (60% Canada, 40% snow and blue) were roosting in the vicinity of Willow Lake, northwest corner of refuge, the last of October.

first fall record

Canada Goose--reported at Austwell, 9/24. Forty at CCC camp, 9/27 and many thousand in flight over CCC camp 9/30 and 10/14. About 600 rested in Wilkinson Bend in front of CCC camp 10/20 to 10/31.

White-fronted Goose.--R. Johnson, Manager of St. Charles Bay Club, Lamar, Texas, reported small flock in St. Charles Bay about 9/15. Common near Austwell in October. None observed on refuge.

Snow Goose.--Twenty at CCC camp 10/11 and 75 at Brahmas Mill 10/14. Abundant in fields near Austwell last half of October.

Blue Goose.--Five at Brahmas Well 10/14. Common with snow geese near Austwell last half of October.

Hutchins Goose.--Seldom seen on refuge. Three at Leader Mill 10/17 and only 1 observed with 800 Canadas at Redfish Bay 10/29.

Mallard.-- One at Leader Mill 10/29 and 3 at CCC camp 10/30.

*24 - Aug. 7
52 seen Carlos well Austin*

Mottled Duck.-- Many "flappers", unable to fly, observed at Redfish Bay and Mullet Bay 10/19 to 10/28. One seen at Salada Mill pond September 6 had primaries in moult. This bird given to J.J. Lynch for study.

Pintail.-- Twenty at Redfish Bay 8/17, first fall record, and 50 at Mullet Bay 8/28. 1500 at Mullet Bay, refuge shore-line, 9/8. About 2900 were discovered at the Carlos well overflow pond (1/4 acre) on 10/29.

Gadwall.-- Three at Walker Mill 10/23 and 250 at Shallow Lake 10/29.

Blue-winged Teal.-- Two at McHugh Mill 8/28. Common on refuge cattle ponds in September.

Green-winged Teal.--Three at Burgentine Creek 9/25 and 50 at Carlos Well 10/29. *first fall record.*

Shoveller.-- Three at Burgentine Creek 9/25. *just fall record*

Lesser Scaup.-- One at Carlos Well 10/29 and 6 at CCC camp 10/31.

Baldpate.-- Sixty at CCC camp 9/29. *just fall record*

Redhead.-- About 100 in Aransas Bay off Blackjack Pt. 10/27.

Ruddy Duck.- Five at Green Lake, Texas 10/31. No refuge record this period.

B. Upland game birds.

Attwater Prairie Chicken.-Prairie chickens seem to have had a good year for nesting - many flocks of birds were observed near the refuge. Weather conditions were favorable and prairie lands were not burned so nesting success, in relation to these factors at least, was assured. Several birds were observed in the Spartina meadow at ranch headquarters the last half of October.

Rio Grande Turkey.-Notes on food habits and behavior of turkey and deer were submitted with Student Technician Uzzell's report, dated September 16, 1939, so data will not be repeated here. A record of turkey flocks observed in August and September, ^{was made} and numbers spotted on a refuge map. Care was taken to avoid duplication of flocks. No special effort to count all refuge turkeys was made but record was kept of those seen in travelling around the refuge in the course of normal work. The total counted was 269 birds. Comparatively few young were noted. Why more young weren't produced, we don't know. ^{predation?} On October 24 a flock of 12 gobblers and 15 hens was noted at Buzzard Well. Two of the gobblers were in full display before the hens.

Texas Bob-white. Quail were abundant on the refuge this summer and autumn until late in October. Apparently many departed for adjacent grain fields. A total of 699 were counted on our refuge travels in the manner described above. We believe that error in duplicating coveys was slight.

Mourning Dove.- Abundant this year throughout refuge. Several nests were found with eggs in August on the dry salt flats east of Shallow Lake. These were placed on the ground in Distichlis, Salicornia and Monanthochloe. A late nesting date was obtained October 21; two young, not yet fully feathered, observed in nest, 6 feet up in live oak, at Venada Mill.

summary
1942

The dove season began in this section of Texas on September 15. The norther of October 10 brought in many doves from the north to the refuge and vicinity.

C. Predator and rodent control.

In this period collecting of predators was continued. One opossum (Aug. 1), 8 raccoons (Aug. 9, 10, 17, 25 and Sept. 2 and 5—two specimens, respectively), 1 coyote (Aug. 29) and 3 armadillos (Aug. 10, 28 and Sept. 3) were taken by trapping or shooting or had been hit by autos. Stomachs of these and animals obtained in July were preserved and sent to the Washington and Denver laboratories for analysis. In addition, stomachs of a Roadrunner, Attwater's Prairie Chicken and a Buff-breasted Sandpiper, all hit by cars, the last two outside the refuge, were preserved and sent to Bureau laboratory at Washington.

F. Other animals.

Texas White-tailed Deer. See Student Assistant Uzzell's report, covering food habits, behavior, censuses, etc. It is interesting to note the sex and fawn ratios obtained from counts made in travel over only refuge trails. Afternoon counts, total 5hr. 19 min., 50 miles travelled, and morning counts 4hr. 7 min., mileage—27.3. Total does—349, bucks, 237 or ratio of 1.5 does to 1 buck. Total fawns—128. Ratio of 2.72 does to 1 fawn. A total of 18 sets of twins observed out of a total of 128 fawns. No doe should get lonely on this refuge.

Bucks were first observed running does on October 13 and throughout the rest of October. On October 29 several bucks, minus one antler, were noted.

Fallow Deer. Two white and one spotted fallow doe were observed several times in September and October near Ranch Headquarters. One white doe was noted in a group of 4 buck and 3 doe white-tails at Buzzard Mill October 25. The deer were frightened by my car and fled.

Peccary.- Mr. Uzzell's report includes all notes on behavior and food habits obtained this period. Fifty-eight individuals were counted this period. The grazing permittee's ranch hands, who ride over the refuge frequently and should know the status of this mammal, are convinced that we have between 200 and 300 peccaries on the area.

Survey note - New

Roseate Spoonbill.-About 75 fed in marsh at Blackjack Point through September. Last seen- one on west shore St. Charles Bay Oct. 27.

Wood Ibis.- A flock of about 40 were present at Mustang Lake in August. The species was uncommon this year on the refuge.

Glossy Ibis.- One dark (immature?) bird, no white on face, noted along road, 4 miles south of Austwell, October 6.

Sandhill and/or Little Brown Crane. Thirteen observed near Artesian Well October 12. About 600 on Redfish Bay flats October 29.

Whooping Crane.- Two seen by J.C. McNeill at Rattlesnake Point on October 21, first fall date - same date first seen 1938. Two family groups, each consisting of 2 adults, 1 immature bird, seen October 25 at Redfish Bay. Two adults seen at Dunham Bay October 27. Three adults seen at Mustang Lake October 29. Movies, using personal camera, taken of 3 adults and of family group, using blind at Artesian Well, October 29. Cranes and geese coming here daily to obtain fresh water.

Pigeon Hawk.- One observed at refuge headquarters October 13.

Duck Hawk.- One seen at headquarters September 22.

Osprey.- Common at CCC camp Sept. 19 - Oct. 31. One to four birds seen.

Spotted Owl 1127

Inca Dove.- Two at CCC camp Sept. 2. First refuge record.

Upland Plover.- Abundant in fields near Austwell in August and up to September 8.

Buff-breasted Sandpiper.- Abundant in cotton and grain fields near Austwell August 29 to September 8. 475, by actual count, on mud flats at Austwell Sept. 3. About 100 seen on shell road near Maudlowe, Texas, September 5, picking up pieces of shell, probably for use as grit. Six seen Sept. 6 at Dunham Bay, first refuge record.

Wilson Phalarope.- One at Salada Mill pond August 19.

Marbled Godwit.- One at Mustang Slough Sept. 26.

Merrill's Parakee.- Common on refuge, often seen on roads at night. Nest with one young found August 9 on ground in live oak motte near CCC camp. Young attended only by male bird who attempted to lure writer away.

*Sept. 23 - 10 Man-of-war birds seen at Mullet Bay
Itinerary - J. O. Starnes*

III. Refuge Development and Maintenance.

C.C.C.- Much work was accomplished this period. Construction of buildings at headquarters has progressed rapidly. Manager's residence: exterior complete except steps, screens and finish coat of paint; interior complete except finish floor, plaster, trim, kitchen cabinets and decoration. Porch not yet floored or sealed. Ass't. Manager's Residence.- Framed, storm-sheated with felt; roof decked and covered with felt; cornices complete; two-thirds of siding complete; window frames installed; sash fitted and hung; all partitions framed and ready for lath. Exterior door frames installed; window and door frames installed for porches; lattice made. Service building.- Framed, storm-sheated, sided, two coats of paint; garage doors completed; windows installed; plumbing roughed in; interior complete except concrete floor in office, concrete ramp and electric wiring. Equipment Shed.- Complete except for siding, window hardware, grease well, ramp.

Burgentine Creek Dam (Dike No. 2).- Core wall and spillway tabby completed. About 60% of overflow tabby completed. About 40,000 cubic yards put in earth fill by end of October using dragline and elevating grader. Water can now be impounded. Dirt being recast with dragline.

Telephone Line.- Line connected and service begun October 13.

Truck trails.- Section of access road in Heard property topped with clay. Road from Ranch Headquarters to Spanish Village all shelled. Road from Village to Burgentine Creek Dam graded. Two mile access road from Salada Mill to Rattlesnake Point completed in order that shell at point could be used in refuge trails. Two and one-fourth miles of east shore road south of Salada Mill graded and shelled.

Cattleguards.- Two completed on Buzzard Mill-Spanish Village road.

Surveys.- Stakes set on $1\frac{1}{2}$ miles of route of main ditch south of

the Dike No.2 spillway. Location and contour map of boatman's residence area prepared.

Marking Boundaries.-Poles cut for use in marking shore and water boundaries. Shoreline and water boundaries marked by refuge and CCC personnel.

Other Wildlife Activities.- An enrollee was assigned to assist Student Assistant Uzzell in collecting plants in the period July 17- September 16.

Food and Cover Planting.- A crew of enrollees under supervision of Laborer-Patrolman Custer plowed and planted four food patches, totalling about 60 acres. All plots were fenced to exclude cattle.

Regular refuge activities.

The regular refuge staff, consisting of manager and laborer-patrolman, spent considerable time this period in administrative work in connection with CCC development. Time was spent with CCC personnel in preparation of plans, field supervision of CCC projects, etc. Regular patrol trips were taken by boat and automobile. County officials cooperated in extending a drainage ditch into the refuge so that drainage waters will flow into Burgentine Lake, now under construction. A water gate under refuge boundary fence was repaired. Mullet Bay and Dunham Bay shorelines were posted with penalty signs. Posting of the proclamation water boundary was begun in St. Charles Bay. This work was stopped by the Regional Office pending revision of posting plans. Refuge equipment was repaired.

Supervision was given to the contractor drilling Water Well No.1 at refuge headquarters. This well was cased and completed Sept.29 after tests showed a flow of approximately 35 gallons per minute. Well No.2 was started and completed (October 2-14) at the boatman's headquarters at Gable House pier. Two tests were made at different levels. Potable water was not obtained.

Conferences were held with the contractor dredging the Intracoastal

Waterway from San Antonio Bay to Aransas Bay. Portions of the canal cut through the refuge. Surveys were made to determine the possibility of impounding fresh water in low areas along the canal right-of-way. The contractor has promised cooperation in upholding refuge regulations.

A test well was started the first week in September at the head of Little Devil Bayou by the Continental Oil Company. The company holds a lease from the San Antonio Loan and Trust Company for refuge oil and gas rights. The contractor had drilled to about 8300 feet by the end of October. Gas was obtained but as yet no oil. The presence of the well with its unprincipled "roughneckers" has brought a number of headaches. Much time was spent in explaining refuge regulations and in trying to regulate traffic, speed of autos, use of refuge roads, etc. We are working with county officials of Aransas County for a speed law, to be called a traffic regulation, that will restrict traffic to 35 M.P.H. County support has been promised.

B. Plantings.

2. Cultivated Crops.- Four plots were plowed, planted and covered using plow, tandem disc and grain drill. Difficulties were encountered in getting proper machinery to break up live oak brush and in other types of clearing. Three plots lie near well ponds and are attractive to geese and turkeys. All four plots were fenced to exclude cattle; deer have not been excluded due to cost of fencing areas against them.

Plot at McHugh Well, about 15 acres, plowing completed Aug. 30; planting completed Sept. 22. Sown one-half to barley, one-half to oats.

Plot at Aquillas Well, about 10 acres, plowing completed Sept. 8; planting completed Sept. 27. Sown $\frac{3}{4}$ oats and $\frac{1}{4}$ barley.

Plot $1\frac{1}{2}$ mi. n.e. Brahmas Well ("Retama Field"), about 15 acres, plowing completed Sept. 13; planting completed Sept. 28. - *oats.*

Plot at Carlos Well, about 20 acres, plowing completed October 10; due to delay and breakdown of equipment, not planted until first week in November. Sown in November to oats.

These plots are frankly experiments. We are trying to develop a method that will efficiently remove oak brush and allow us to get a crop cover on sandy soil exposed. A turkey flock visited the Retama field daily in October. About 75 Canada geese were noticed feeding in the Acquillas field October 29 and about 75 Canadas in the McHugh field October 26 plus 15 deer. (Two whooping cranes alighted in the Acquillas field November 3. If we can thus entice them away from the Intracoastal Canal dredges and the oil well site and thus help protect them, we will feel somewhat satisfied with our planting work.)

C. Collection.

On September 12, Mr. Barclay brought us the following seed, obtained from Soil Conservation Service at Albuquerque:

Helianthus annuus 122 lbs; Eleagnus angustifolia 49 lbs.; Sambucus caerulea 38 lbs., and S. neomexicanus 50 lbs. This seed will be planted by CCC labor this winter.

IV. Public Relations.

Several groups of visitors were shown over the refuge, particularly those areas under development by CCC. Attempts of fishermen to camp on the refuge were stopped. Public relations with the Intracoastal Canal contractor and crew and the oil well driller and crew have been referred to above.

Newspapermen from the Corpus Christi papers were shown over the refuge and given information resulting in two articles about the refuge published in Corpus Christi papers. Copies have been submitted to Washington.

Visitors.- October 13. Regional Game Warden Dawson and Regional Game

Manager Lehmann of the Texas Game, Fish and Oyster Commission.

Refuge Violations. None

V. Economic Uses of Refuge.

A. Grazing.-

Grazing under permit continued. The range was in good condition considering lack of normal rainfall. A good crop of calves was obtained. These came through the summer in good shape as dry weather kept down ravage from screw worms. Dry weather did result in lessening number of watering places for cattle but it is believed that no permanent harm was done.

A total of 991 calves were sent out by truck in this period. These calves had just been weaned and were not subject to head fee.

VI. Other items.

Summer research program.-Student Assistant Uzzell was on duty from July 17 to September 16. Uzzell submitted report of his summer activities September 16. A collection of mottled duck, raccoon and turkey scats was made. These were forwarded to the Section of Food Habits, Division of Wildlife Research, at Washington. Also submitted were stomachs of 22 mammals (all predators except one fox squirrel) and three birds. Three sets of plant specimens (223 different plants) were prepared. These plants were collected on the refuge. Two sets were sent to the Washington Office for identification. Notes on food habits and/or behavior of deer, peccary, turkey and quail were made. Type maps of vegetation in particular areas were made.

Stomach collections.-Stomachs of a Chuck-wills-widow and caracara, accidentally killed and found dead, were preserved. These will be forwarded to Washington at a later date.


James O. Stevenson
Asst. Refuge Manager
Submitted Nov. 14, 1939



White-tailed Deer, buck in velvet
Ranch headquarters, Aransas Refuge
July 16, 1939



White-tailed Deer, buck in velvet
Ranch headquarters, Aransas Refuge
August 4, 1939



White-tailed Deer Aug. 9, 1939
Ranch HQ Aransas Refuge



White-tailed Deer Aug. 9, 1939
Ranch HQ Aransas Refuge



Rio Grande Turkey Aug. 9, 1939
CCC camp Aransas Refuge



Nestling Mourning Dove Oct. 21, 1939 ✓
Venada Mill Aransas Refuge