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The Market Hunting of Texas Birds

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Abstract

The sale of birds and their eggs and feathers was an extensive business in Texas from about 1860 until 1907. Contemporary observations suggest that large numbers of persons were engaged in a market trade that grossed tens of thousands of dollars per annum. Sixty species of Texas birds are known to have been collected for the market.

The first state game law in 1860 protected the quail on Galveston Island. A general game law providing broader protection for birds was passed in 1879 with additional enactments in 1881 and 1887. Plume birds were first protected in 1891. The 1897 game law prohibited the intrastate transport and sale of certain species of birds (ducks and geese excluded) and was further strengthened by the Lacey Act of 1900 that prohibited the interstate transport of those birds protected by state law. The Model Law, passed by the state legislature in 1903, prohibited market hunting in all of its various manifestations.

In 1890 the Texas State Sportsmen's Association endorsed a statewide campaign against market hunting. This movement was joined in the early 1900's by the National Audubon Society, The Texas Humane Society, and the Southern Pacific Railroad. The re-enactment of the 1903 Model Law in the spring of 1907, together with legislation to provide a game warden system, effectively marked the end of the market hunting era in Texas.

The Birdlife of Early Texas

The chronicles of early Texas make frequent mention of an abundant birdlife. One account told of an immense rookery of assorted birds found in 1831 on a small island in Galveston Bay.¹ A second report in 1836 declared that waterfowl were so abundant that a single shot would often provide a meal for twenty persons.² In 1840 John Lockhart observed immense numbers of ducks, geese, partridges [quail?], and turkeys on the prairie between Houston and Washington-On-The-Brazos.³ In 1845 Ferdinand von Roemer described the surface of the water at New Washington as being in many places ". . . completely blackened by myriads of wild ducks. Whole rows of white swans . . . pelicans, geese and various diving birds without number completed the swarms of feathered denizens. A confused noise, composed of a thousand-fold cackling and screeching rose up from the water as if coming from a huge poultry yard . . ." ⁴ The fledgling state was indeed provided with a bountiful harvest.

The effect of hunting on the enormous populations of birds by the Indians and early settlers was probably negligible. This situation, however, changed dramatically as the non-Indian population of Texas increased from an estimated 20,000

in 1831 to 50,000 in 1836, 125,000 in 1845, and over 270,000 in 1850.⁵ There were no laws in the Republic governing the hunting of birds. Landowners considered the wildlife to be their private property to do with as they pleased. This attitude was aptly expressed in a bird hunting license issued at Galveston on 23 December 1840.⁶ In this document composed of 21 lines of verse, Mosely Baker, owner of the Isle of Evergreen, granted to William Douglas Lee and his heirs the perpetual right to "Without respect to feather, slay . . . Every bird of every feather."

The philosophy of "Without respect to feather, slay" was soon to reap its logical consequence. The adverse effect of hunting on local birdlife was first observed at Galveston in January 1846. Large numbers of German emigrants were living on the island in the most impoverished conditions, and the men were forced to hunt continually to supply food for their families. The result was that "Everything [was] destroyed, or scared away . . . and no living creature [was] to be seen but a pelican or two . . . and some little white sandpipers . . ." ⁷ The situation was indeed quite changed from 1839 when Galveston's Tremont Hotel offered a repast of geese, ducks, and turkeys that "could not be excelled."⁸

The Extent of Market Hunting

There are no accurate statistics on the number of persons engaged in the Texas market trade. It is probable, however, that during the period from around 1860 until 1907, large numbers of people including hunters, market and restaurant owners, hotel owners, cold storage operators, transport companies, and merchants selling collecting paraphernalia participated in the market trade.⁹ "Captain Flack" who hunted in Texas prior to the Civil War claimed that his gun kept him "for many years, in meat, clothes, and money."¹⁰ In the fall of 1893 the *Rockport Times* reported that the "Killing of game for the northern market [had] become a regular business, [giving] work to many men."¹¹

The development of railroad transport between the coastal hunting grounds and the interior cities during the 1880's and 1890's served to expand the game market and to create a need for middlemen to oversee packing, transport, and distribution. Most large cities had markets in which game was regularly sold, and when the local supply was inadequate, game was ordered from "game dealers" in other localities. By the 1880's Corpus Christi had at least two "game dealers," one of whom advertised that "orders from the interior of the state will receive prompt attention."¹² In 1891 Dumler's Fulton Market in Houston advertised that fresh quails, snipes, and canvasback ducks were "always on hand."¹³

Most market hunters were probably employed on a part-time basis. With the exception of quail netting, the work of the hunter was seasonal and corresponded with the arrival of the waterfowl on the coast and the spring breeding season of those species exploited for their eggs and plumes. One can therefore assume that most hunters had other jobs and did not depend entirely on the income derived from the sale of game.

Sixty species of Texas birds belonging to 19 families are known to have been collected for the market (Appendix). Products derived from the birds included meat and eggs for food and folk medicine, plumes and skins for millinery purposes, and oil for lubrication. Live birds were used for trap shooting and as pets. Adult birds were collected by netting, trapping or shooting, whereas eggs and nestlings were obtained by nest-robbing.

The prices paid for market birds were variable. In 1887 live Bobwhite could be purchased in San Antonio for 60 cents a dozen.¹⁴ Between 1889 and 1894, quail were sold at Canadian, Texas, for \$1.50 per dozen whereas prairie chickens sold for 15 cents each. At Quanah, Texas, quail were 75 cents per dozen.¹⁵ In 1892 prairie chickens sold for 35 cents on the Houston Market.¹⁶ In 1900 Jackdaw [Great-tailed Grackle] skins sold for 10 cents,¹⁷ Least Terns for 20 cents, Great Blue Herons for 40 cents and the wings of Long-billed Curlews for seven cents.¹⁸

Efforts to Regulate Sport and Market Hunting

The first state game law was enacted in February 1860 to protect the quails and partridges on Galveston Island. With the exception of the Galveston law, there were no other state laws protecting birds when the British ornithologist Henry Eeles Dresser toured Texas in 1863 and 1864. In the market at Matamoros, Mexico, Dresser observed Chachalaccas, White-winged Doves, Mourning Doves, and Red-billed Pigeons for sale. Dresser also recorded the presence of gunners on Mitchell's Lake near San Antonio and on Galveston Island, where he conversed with a German who hunted for the market.²⁰

The first general game law was passed in Texas in 1879. This law, which protected songbirds and prohibited the killing of doves and quails during their breeding season, was met with vigorous protest culminating in the formal exemption of 85 counties. In 1881 the law was strengthened by requiring a five month closed season on prairie chickens and a three and one-half month closed season on turkeys. Response to this act was almost in the form of a popular revolt, and when the legislature met in 1883, 130 counties were declared exempt from all game and bird laws.²¹

Illegal Netting of Bobwhite Quail

The ease with which quail could be trapped or netted led to their capture and sale in large numbers. According to an 1882 account two men came into Hearne "peddling live quail, which they claimed to have trapped, to the number of thirteen hundred in four days."²² In 1887 the legislature passed a law prohibiting netting at all times of the year and the catching or killing of quail during the months of April through September. The law did not contain any provision against off-season capture by methods other than netting; therefore, circumvention of the intent of the law was quite easy. Many counties were also exempt from the law, and the problems that this created for enforcement are illustrated by the following incident. In January 1890 large numbers of quail were being shipped to Galveston from Caldwell County and Brown County, which was an exempt county. Although the names of the consigners were known to the authorities, it was conceded that prosecution could not be initiated in Galveston County.²³ Oscar Guessaz, President of the Texas State Sportsmen's Association, declared in disgust that the "present game laws are but dead letters upon the statutes and unless the game protectors attend to their wants, Bob White [sic] and other birds will have their heads ignominiously twisted off by the nefarious trapper . . ."²⁴

Destruction of the Eggs and Young of Coastal Birds

One of the most gruesome acts in the history of market hunting was perpetrated on the Brown Pelicans of Corpus Christi Bay. In March 1878 George Sennett

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visited two small shell islands on which an estimated 5,000 pelicans were nesting. In April 1882 Sennett returned to these same islands to find them deserted. An inquiry into the cause of this change revealed that a group of men had hoped to make their fortune selling pelican oil. A rendering factory had been set up on the mainland, and thousands of young pelicans were collected and boiled for their oil! The oil could not be sold and so the project failed, but not before great damage had been done to the pelican population.²⁵

Sennett also reported that there was “probably not a port, pass, or bay on the entire coast of Texas whose inhabitants did not regularly devote several days each year to what they term ‘egging’.” Upon learning that the birds were established in their nesting areas, the poachers would systematically destroy every egg already laid by the birds and then withdraw until the following day to allow the birds to lay fresh eggs. They would then return periodically over the next two or three days to collect the freshly laid eggs for sale along the coast. Some boats would come a distance of over 100 miles to gather eggs, cruising from one area to another until they had secured a good load. Many of the eggs were broken by rough treatment, and large quantities were often discarded because of inferior quality or cheap price.²⁶

Market Hunting of Plume Birds and Waterfowl

In 1883 George Sennett was elected Chairman of the American Ornithologists' Union Committee on Protection of North American Birds, and in this capacity he solicited information from his collectors and correspondents in Texas. In August 1886 John Priour wrote from Corpus Christi that the water birds of that area had been intensely hunted since their eggs had brought a good price.²⁷ Priour reported again in May 1887 that plume agents from New York were active in the vicinity of Eagle Lake in Colorado County.²⁸ From George Ragsdale in Gainesville there also came word in May 1889 of plume hunters on the Neches, Angelina, Sabine, and Trinity rivers.²⁹ In 1891 the legislature passed an act to protect seagulls, egrets, herons, pelicans, and their eggs. The Lacey Act, a federal law passed in May 1900, extended additional protection to these birds by prohibiting the interstate traffic of birds killed in violation of state laws. The first court test of the Lacey Act was reportedly the successful prosecution of an illegal shipment of gulls and terns from Brownsville.³⁰

Waterfowl were staple items in the markets of the coastal cities during the 1890's. In 1891 John Singley was able to identify 20 species offered for sale in the Galveston market. Many birds were also shipped to out-of-state markets. In a letter describing the destruction of Texas birdlife, Singley claimed that hunters for St. Louis and Chicago dealers were squatting on “. . . many of the favorite resorts of ducks and geese.” It was further alleged that a New York dealer had fitted out a schooner for the slaughter along the coast and that the river bottoms in the interior were overrun with millinery hunters from the North. Singley also related having seen a colony of herons destroyed near Corpus Christi, the skins of 300 terns killed on Galveston Island, and coops of quail starved to death in restaurants. Singley's letter was published in the *San Antonio Express* on 6 April 1893 and, by either unhappy coincidence or mischievous intent, there appeared immediately across from it a double column advertisement for the New York Emporium Millinery Company.

The intrusion of out-of-state hunters onto local hunting grounds coupled with a noticeable decline of game led Texas sportsmen to organize in opposition to market hunting. During the fall of 1896 there were reports of both heavy slaughter by the market hunters and successful prosecution of lawbreakers in those counties not exempt from the game law.³¹ In January 1897 the sportsmen lobbied in Austin for a law that would offer protection from the “ravages of the market hunter and the game hog.”³² In response to this pressure the game law that was passed in 1897 prohibited the sale, purchase, and shipment of turkeys, grouse, prairie chickens, quail, plover, snipe, and jacksnipe. The sale and purchase of these birds was, however, legal if made in the county where they were taken or killed. Ducks and geese were exempted from the sale, purchase, and transport prohibitions of the law, but were mercifully protected from slaughter by means other than an “ordinary gun.” In 1901 an additional law was enacted to protect ducks, geese, and other coastal waterfowl from being killed at night. The protection afforded by the 1897 law had a beneficial effect on at least one species. By 1899 the prairies of Calhoun County were “literally alive with plover, a bird that had grown scarce while the law permitted their being killed and shipped out of state.”³³

Calhoun County was an active area for duck and geese hunters. In November 1899 the Mayfield Brothers were market hunting out of Port Lavaca.³⁴ In December 1899 two market hunters were killing, packing, and shipping between 200 and 300 ducks each couple of days.³⁵ In October 1900 a Calhoun County hunter was reported to have marketed 300 ducks and a great number of snipe, curlew, and other waterfowl. During this same period, there were also reports of hunting boats in the area “with several hundred in the crew.”³⁶ In 1900 it was asserted that the Jackdaw [Great-tailed Grackle] was being “rapidly destroyed” in Calhoun County due to the market value of its skin.³⁷ In one year during the 1890’s, an estimated 50,000 canvasbacks were shipped from Rockport, and 30 to 40 market hunters were working in Aransas Bay.³⁸

The wastage of ducks and geese at Gum Hollow near Portland during the 1890’s and early 1900’s is a vivid example of game “hogishness” at its worst. Sportsmen from distant cities would come by private railroad cars to the Portland siding where they would park and hunt for several days. There was no bag limit and the contest was one of “high numbers” with birds being slain by the hundreds. Most of the birds were discarded with only a few kept by the hunters and the remainder given to local residents. One opportunist reportedly made a “substantial income from salvaging the livers and gizzards” and selling them to the markets and hotels in Corpus Christi.³⁹

Passage of the 1903 Model Law

Market hunting of ducks, geese, and other birds continued until the passage of the 1903 American Ornithologists’ Union Model Law which prohibited their sale both within and outside the state. The bag limit set by the 1903 law was 25 birds per day. The *Texas Field and Sportsman* headlined its June issue with the bold imperative “WATCH OUT FOR GAME VIOLATORS—LET NO ONE ESCAPE PUNISHMENT.” For 25 cents the magazine would send an annotated pamphlet explaining the law, and an additional dollar would buy 100 posters with the law printed in English, German, and Spanish.⁴⁰

The 1903 law allowed the keeping of wild birds as cage pets provided that they

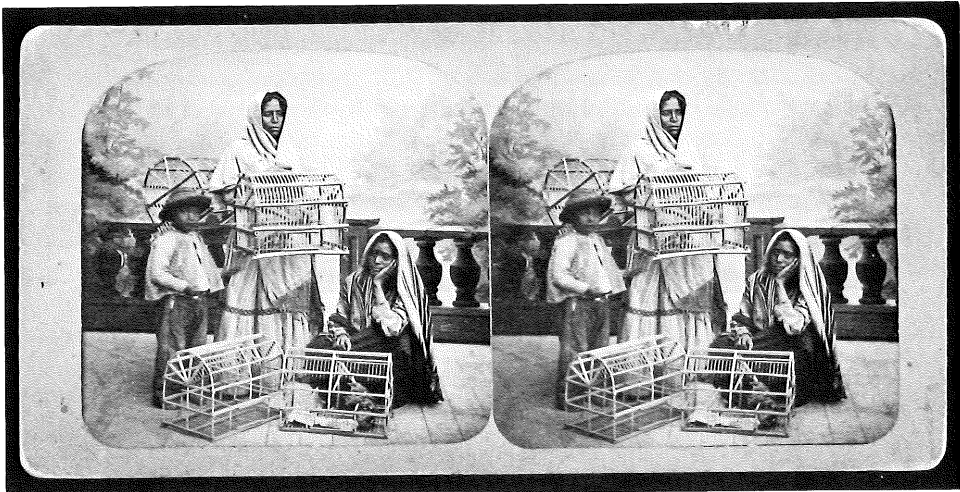


Fig. 1. PAGARIAS (Mexican Woman Selling Birds). Doerr & Jacobson, Photographers. Albumen silver print (stereoview), 1870's. Courtesy Amon Carter Museum, Fort Worth, Texas.

were not sold, exchanged, or transported out of the state. Although at least six species are known to have been used as cage birds (Appendix), the traffic was probably never large or a threat to the species involved. The mockingbird was probably the most common cage bird. Its sale was first reported in 1863 in the markets of Matamoros, and in San Antonio during the 1890's a small industry grew up around the construction of cages and the rearing of the young mockingbirds.⁴¹ Dried and woven reeds were used in the construction of cages designed to accommodate six or seven birds. The birds and their cages were sold around the hotels and tourist spots of the city (Fig. 1). This practice continued in San Antonio until at least 1913.⁴²

The 1903 law did not bring an end to the exploitation of Texas birdlife. The market demand for wild birds was still so strong in 1905 that it was facetiously declared that people would "... eat anything the pot hunters ship except turkey buzzards and there is no telling when they will acquire the buzzard habit."⁴³ Quail could still be legally trapped for propagation and the market hunters were quick to use this as a subterfuge. The most notorious case was that of the Carter Brothers who shipped birds trapped in southwest Texas to E. B. Woodward in New York City. The brothers were apprehended in the spring of 1906 for unlawfully shipping quail. Their collecting permit had been fraudulently obtained; and when arrested, they had in their possession orders for over 37,000 quail.⁴⁴ Upon learning of the details of the Carter case, the local sportsmen were so outraged that they met in San Antonio to organize the Texas Game Protective Association.⁴⁵

Quail were not the only birds still being illegally collected for market. As late as January 1907 it was reported that ships carrying vegetable produce from High Island to Galveston were also carrying large numbers of contraband ducks to the Galveston market.⁴⁶ Not until the enactment of the state warden system in 1907 was there an organized means of dealing with such wholesale disregard of the game laws.

The effect of market hunting on the waterfowl populations is difficult to ascer-

tain. Contemporary observers estimated in 1905 that market hunters, allied with the cold storage agencies, had reduced the number of ducks and geese wintering on the Texas coast by more than 50 percent.⁴⁷ Entire colonies of birds had been destroyed or displaced from their original habitat by the constant harassment of the hunters.

Development of the Conservation Movement

An organized conservation movement was slow to develop in Texas. The first attempts at protection included the employment of wardens by large, private landowners and the formation of game protective associations by sportsmen and concerned citizens. A statewide movement can, however, be traced from May 1890 when the convention of the Texas State Sportsmen's Association included a special session on the formulation of game and fish laws. Oscar Guessaz (1855–1925), the outspoken editor of the *Texas Field and Sportsman* who was elected president at the 1890 meeting, took the position that market hunting was a practice “. . . bred of ignorance and a reckless disregard of the danger of exterminating our game birds.”⁴⁸ Guessaz was a true disciple of Nimrod, but he clearly distinguished between the noble art of the gentleman hunter and the nefarious activities of the “game hog” and “pot hunter.” As a leader in the State Sportsmen's Association and as editor of the largest sportsman's magazine in Texas, Guessaz effectively organized the sportsmen's lobby and used his publication to relentlessly expose the enemies of conservation. However, even while many sportsmen worked vigorously to protect game birds, they continued their custom of using live birds for trap shooting. In 1891 it was estimated that 6,000 pigeons would be needed to satisfy the needs of the Texas State Sportsmen's Association trap shoot that was to be held in San Antonio.⁴⁹ This annual event, better known as the “State Pigeon Tournament,” used live birds from its inception in 1878 until popular sentiment in the late 1890's brought about the increasing use of artificial targets. The limited use of birds, however, continued until 1906 when the association voted to discontinue the practice.⁵⁰

Another significant event was the organization of the first Texas Audubon Society at Galveston during March 1899. This society was, however, short-lived due to the deaths of its secretary and most of the membership during the hurricane of 1900. A second Audubon society was formed at La Porte in 1903 and in late 1904 the leadership of the Audubon movement passed to one of the most colorful characters in the history of Texas conservation. Captain Mervyn Bathurst Davis (1844–1912) was a veteran of the Civil War and was for many years a newspaperman in Waco. Davis organized the first game and bird protective association in 1881 and during the early 1900's devoted his energies to conservation as an officer of The Texas Humane Society and as the Secretary of the Texas Audubon societies.⁵¹ Davis had been a hunter in his younger days and his acceptance of the conservation ethic was of the nature of a religious conversion. Intelligent, articulate, humorous, and bearing a striking resemblance to “Mark Twain,” he was also a fearless antagonist of those who defied the law. On one occasion, after learning that the Menger Hotel in San Antonio had served game soup, quail in jelly, and grouse stuffed with truffles to President Theodore Roosevelt, he offered to personally assist in the prosecution of those “. . . guilty of this flagrant violation of the law.”⁵²

Two railroad men, H. P. Attwater and T. J. Anderson, were also influential in the early conservation movement. Henry Philemon Attwater (1854–1931) was a self-trained naturalist and a skillful tactician in the struggle to win the minds and hearts of men. In his position as Agricultural and Industrial Agent for the Southern Pacific Railroad, Attwater relied on educating the farmer and businessman and, to this end, he lectured and wrote extensively on the beneficial value of birdlife.⁵³ Following passage of the 1903 law, Attwater obtained 3,000 warning posters from the National Audubon Society which he arranged to have distributed throughout the state. Officials of the Southern Pacific Railroad and the San Antonio and Aransas Pass Railway Company voluntarily offered to distribute and display the warning notices in all of their stations throughout Texas.⁵⁴

T. J. Anderson, General Passenger Agent of the Southern Pacific Railroad, viewed birdlife as an attraction for luring hunters to the Texas Coast. The passenger division of the railroad advertised sporting excursions to the hunting grounds; and therefore, had a vested interest in seeing that duck and goose populations remained at levels necessary for good hunting. Anderson, therefore, used his influence to ensure that the transport clauses of the 1903 law would not be modified in any way that might favor excess hunting or shipping for market purposes. Recognizing the power of the press, he allowed his correspondence to be widely reprinted and later published in pamphlet form at railroad expense.⁵⁵

The Model Law of 1903 was scheduled to expire by limitation in 1908, and the legislative fight for its re-enactment in the spring of 1907 was considered to be crucial. The Game Law Committee appointed to study the issue consisted of Frank P. Holland, H. P. Attwater, M. B. Davis, C. Taylor Cade, Oscar C. Guessaz, Hugh Jackson, J. H. Connell, and other friends of wildlife. Their report recommended that the 1903 law be re-enacted, that a license be required for both resident and nonresident hunters, and that the revenue from licenses and fines be used solely for game protection and propagation.⁵⁶ Lobbying by the opponents of the game law was intense, but the essential elements of the 1903 law were again reaffirmed although the licensing provision was greatly weakened by the deletion of the requirement of a license for resident gunners. The game warden bill introduced by Rep. Henry Berryman Terrell (1869–1921) of McLennan County was also approved, and in August 1907 R. W. Lorance, a newspaperman from San Angelo, was appointed head of the law enforcement division.⁵⁷ The first prosecution under the 1907 law occurred in October when the proprietor of the Overland Market in El Paso was arrested for possessing and offering wild ducks for sale.⁵⁸

The legislative victory of the conservationists in 1907 marked the end of market hunting in Texas. The war had been won, but its lessons were not quickly forgotten. Most of the conservation leaders feared that without constant vigilance the forces of market hunting would again reemerge. The continued economic exploitation of Texas wildlife over the past 75 years has demonstrated that these fears were not unfounded.

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Appendix. Economic Uses of Texas Birds.

Species	Economic use	Location	Reference
Pelicanidae			
Brown Pelican	Oil & Eggs	Nueces Bay	25
Threskiornithidae			
White-faced Ibis	Food	Rio Grande Valley	59
Ardeidae			
Great Blue Heron	Millinery	Flour Bluff	62
	Millinery	Refugio County	60
	Millinery	Corpus Christi	62
Great Egret	Millinery	Corpus Christi	62
Snowy Egret	Millinery	Corpus Christi	62
	Millinery	Corpus Christi	60
Anatidae			
Tundra Swan	?	Refugio County	60
Gadwall	Food	Galveston Market	61
American Widgeon	Food	Galveston Market	61
Green-winged Teal	Food	Galveston Market	61
Blue-winged Teal	Food	Galveston Market	61
Northern Shoveler	Food	Galveston Market	61
Northern Pintail	Food	Galveston Market	61
Redhead	Food	Galveston Market	61
	Food	Rockport	60
Black-bellied Whistling-Duck	Food	Brownsville Market	71
Canvasback	Food	Galveston Market	61
	Food	Rockport	38, 60
	Food	Houston Market	13
Lesser Scaup	Food	Galveston Market	61
	Food	Jefferson	65
Snow Goose	Food	Galveston Market	61
Greater White-fronted Goose	Food	Galveston Market	61
Mallard	Food	Galveston Market	61
	Food	Jefferson	65
	Food	All Large Towns	66
Cracidae			
Plain Chachalacca	Food	Matamoros Market	20
	Food	Brownsville Market	71
	Domestication	Rio Grande Valley	59
	Food	Hidalgo	62

Appendix. Continued.

Species	Economic use	Location	Reference
Tetraonidae			
Greater Prairie-Chicken	Food	Gainesville Market	67
	Food	Houston Market	16
Phasianidae			
Northern Bobwhite	Food	San Antonio Market	14
	Food	Gainesville Market	67
	Food	Houston Market	13
	Food	Hearne	22
	Food	Galveston Market	23
	Food	Restaurants	72
	Food	Canadian Market	15
	Food	Quanah Market	15
Food	Denison	15	
Meleagrididae			
Wild Turkey	Food	Boerne Hotel	68
	Food	Galveston Hotel	3
	Food	Gainesville Market	67
Rallidae			
Purple Gallinule	Cage Bird	Galveston Bird Store	61
American Coot	Food	Galveston Market	61
Charadriidae			
Lesser Golden Plover	Food	Galveston Market	61
	Food	Refugio County	60
Black-bellied Plover	Food	Galveston Market	61
	Food	Houston Market	79
Scolopacidae			
Upland Plover	Food	Galveston Market	61
	Food	Refugio County	60
Greater Yellowlegs	Food	Galveston Market	61
	Food	Corpus Christi	62
Lesser Yellowlegs	Food	Galveston Market	61
Pectoral Sandpiper	Food	Galveston Market	61
Common (Wilson's) Snipe	Food	Houston Market	13
	Food	Calhoun County	38
	Food	Fort Worth	76
	Food	Galveston Market	61
Buff-breasted Sandpiper	Food	Galveston Market	61
Long-billed Curlew	Millinery	Corpus Christi	62
Laridae			
Least Tern	Millinery	Corpus Christi	62
Rhynchopidae			
Black Skimmer	Millinery	Corpus Christi	62
Columbidae			
Rock Dove	Trap Shooting	San Antonio	49
	Trap Shooting	?	69
White-winged Dove	Food	Matamoros Market	20
	Cage Bird	Eagle Pass	20
Mourning Dove	Food	Matamoros Market	20
Red-billed Pigeon	Food	Matamoros Market	20
Passenger Pigeon	Food	Rio Grande Valley	59
	Food	Austin	73
Cuculidae			
Greater Roadrunner	Folk Medicine	Matamoros	20
Yellow-billed Cuckoo	Millinery	Texas	81

Appendix. Economic Uses of Texas Birds.

Species	Economic use	Location	Reference
Mimidae			
Northern Mockingbird	Cage Bird	Matamoros Market	20
	Cage Bird	San Antonio	41
	Cage Bird	San Antonio	42
	Bird Pie	McLennan County	69
Corvidae			
Green Jay	Cage Bird	Brownsville	71
Blue Jay	Food	Texas	74
Muscicapidae			
Turdinae			
American Robin	Bird Pie	McLennan County	69
Wood Thrush	Food	Harris County	70
Emberizidae			
Cardinalinae			
Northern Cardinal	Bird Pie	McLennan County	69
	Food	Texas	74, 75
	Cage Bird	San Antonio	82
Pyrrhuloxia	Cage Bird	Eagle Pass	20
	Cage Bird	Eagle Pass	20
Emberizinae			
White-throated Sparrow	Food	Texas	74
White-crowned Sparrow	Food	Texas	74
Fox Sparrow	Food	Texas	74
Icterinae			
Common Grackle	Trap Shooting	McLennan County	69
Great-tailed Grackle	Millinery	San Ignatia	62
	Millinery	Matagorda County	37
	Trap Shooting	McLennan County	69
Yellow-headed Blackbird	Trap Shooting	McLennan County	69
Red-winged Blackbird	Trap Shooting	McLennan County	69
Black-headed Oriole	Cage Bird	Rio Grande Valley	59
	Cage Bird	Brownsville	71
Eastern Meadowlark	Food	Harris County	70
Unidentified species			
Grebes	Food	Houston Market	79
Herons	Millinery	Statewide	72
Egrets	Millinery	Eagle Lake	28
	Millinery	Corpus Christi	62
Ducks	Food	Calhoun County	35, 36
	Food	Galveston Hotel	3
	Food	Gainesville Market	67
Geese	Food	Calhoun County	35
	Food	Gainesville Market	67
	Food	Galveston Hotel	3
Plover	Food	Calhoun County	33
Terns	Millinery	Corpus Christi	63
	Millinery	Galveston	72
Gulls	Millinery	Statewide	72
Woodpeckers	Millinery	Indianola	77
	Food	Houston Market	79
	Food	Houston Market	79
Sparrows	Millinery	Statewide	72
Warblers	Millinery	Statewide	72
Pelicans	Millinery	Statewide	72
Water Birds	Eggs	Corpus Christi	27
Water Fowls	Food	Calhoun County	36
	Food	Corpus Christi	39
Wild Fowls	Food	Gainesville Market	73

Appendix. Continued.

Species	Economic use	Location	Reference
Swan	Food & Millinery	Matagorda County	36
Curlew	Food	Calhoun County	36
Bluebirds	Food	Texas	74
Swallows	Food	Houston Market	79
Blackbirds	Trap Shooting	Gainesville	83

Recent Articles About Texas Birds

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Population Structure of Winter Birds in Residential Areas

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In recent years urban wildlife has drawn increasing attention. More and more it has been recognized that wildlife as well as plant life contributes to the quality of life in the urban environment (Allen 1974). Although urban bird densities are often higher than those in rural areas or in native vegetation, the avifauna usually is made up of a few species (Emlen 1974), which, when present in large numbers or in large flocks, may constitute a nuisance.

There have been numerous studies of urban bird population composition and structure in recent years. Most of these (Pitelka 1942; Linehan et al. 1967; Woolfenden and Rohwer 1969; Emlen 1974; Hooper et al. 1975; Gavareski 1976) have dealt only with breeding populations in the spring or summer. Attempts at control of large congregations of wintering blackbirds and starlings in urban areas have been frustrated by a lack of information concerning urban bird population structures in winter. In order to increase our understanding of the usage of urban habitats by birds in winter, we selected three residential areas in College Station, Texas. College Station is part of an urban area of over 100,000 people. During the course of this study we examined flock size, relative species abundance, and distribution among the vegetative strata.

Methods

Sixteen censuses were conducted on each of four routes through three residential areas from 7 December 1976 through 28 February 1977. The censuses were conducted by walking a fixed census route and visually searching the area on one side of the census route. Each census route was approximately 1.5 km in length and took about 1 hour to walk. For each route, at least one census was performed at each hour of the day from 0700 to 1500 hours. Only flocks located between the street (or alley) and the peaks of the roofs of the houses were recorded. For each flock observed, the species, flock size, and location (grass or ground, shrub, tree, and artificial) were recorded.

One route was in a residential area typified by new, brick homes with dense, native trees. The area contained several vacant lots with native woodland and dense undergrowth. Most trees were without leaves during the period of the study. A second route was in a residential area typified by older, wood-siding homes with sparse shrubbery. Two routes (one along the front yards and one along the backyards) were conducted in one residential area. This area was typified by large, older homes with very dense trees and shrubbery.

In the following discussion, bird names used are those found in the AOU *Checklist of Birds of North America*, 6th ed.

Results and Discussion

On the 64 censuses combined, 36 species were recorded. Even though the greatest number of species (29) was recorded in the "new brick home" area, an average of only 8.3 species were seen on each census. In the "older wood-siding home" area, 28 species were seen with an average of 11.0 species seen per census. In the area censused in the front yards and backyards, only 26 and 25 total species were recorded with averages of 10.7 and 12.2 species seen per census. The backyard censuses were the shortest in length but covered a route with the largest amount of tree and shrub vegetation. This resulted in a high number of species and individuals per census, but surprisingly, few rare species were seen. The "new brick home" area had small yards with little shrubbery but many native trees; it produced both the fewest species and individuals per census, but the highest number of rare species. Other birds seen in the study areas during the study period but not recorded on any census included Red-tailed hawk, American Kestrel, Turkey Vulture, Rock Pigeon, Inca Dove, and American Crow.

On the combined 64 censuses, a total of 3,762 birds were seen (Table 1). The most abundant species were European Starling (33.4%), Yellow-rumped Warbler (10.5%), White-throated Sparrow (8.7%), House Sparrow (5.8%), and Northern Mockingbird (5.2%). It is interesting to note that the first and fourth most abundant species are introductions to North America. Four species (Killdeer, Brown Creeper, Eastern Meadowlark, and Golden-crowned Kinglet) had only one individual recorded; both Killdeer and Eastern Meadowlarks are very common in rural areas in the vicinity.

A total of 1,706 flocks were seen (Table 1). The most numerous flocks were of Yellow-rumped Warblers (17.4%), starlings (13.3%), Northern Mockingbirds (11.1%), American Robins (8.7%), and Northern Cardinals (8.3%). The average flock size was 2.2 birds (Table 1). The largest flocks were of American Goldfinches (11.3 birds), Cedar Waxwings (7.5 birds), Brown-headed Cowbirds (6.7 birds), starlings (5.5 birds), White-throated Sparrows (3.4 birds), and Purple Finches (3.3 birds). Especially in the "older wood-siding home" area, starlings were an annoyance to some residents due to their great abundance and large flock sizes. Of the 3,762 birds seen on all censuses, single birds accounted for 71.6% (Table 2); larger flocks occurred in decreasing proportions.

The distribution of each species among the four vegetative strata (grass/ground, shrub, tree, artificial) is shown in Table 1. Trees were used the most (61%) by all birds combined; the grass and ground were also used in high proportion (27%). Even though dense along three of the four census routes, shrubs were not used extensively (7%). Artificial perches were apparently used little (5%) on an overall basis.

Of the 11 species for which more than 100 individuals were seen, only the Yellow-rumped Warbler is not considered to be primarily a ground feeder. The Yellow-rumped Warbler normally feeds on insects gleaned from foliage or caught in the air. However, in the areas censused, they were seen on the ground 16% of the time. Only 2 of the 11 species, American Robin and White-throated Sparrow, were seen on the ground more than on any location. The Brown-headed Cowbird, also a ground feeder, was seen almost exclusively in trees. This indicates that the residential areas were used mostly, if not exclusively, for roosting rather than feeding by the cowbird. Of those seen more than 100 times, only White-throated

Table 1. Relative bird abundance, relative flock abundance, average flock size, and distribution among vegetative strata for 36 bird species recorded on 64 censuses of three residential areas in College Station, Texas in the winter of 1976-77.

Species	Bird abund.		Flock abund.		Flock size			Distribution (%)			
	%	No.	%	No.	Mean	SD	Grass	Shrub	Tree	Misc.	
Killdeer	0.0	1	0.1	1	1.0	—	0	0	0	100	
Mourning Dove	2.9	110	3.2	54	2.0	2.1	21	0	66	13	
Common Flicker	0.8	31	1.7	29	1.1	0.3	52	0	45	3	
Red-bellied Woodpecker	0.5	17	1.0	17	1.0	0.0	6	0	88	6	
Yellow-bellied Sapsucker	1.1	40	2.3	39	1.0	0.2	0	3	98	0	
Downy Woodpecker	0.2	8	0.5	8	1.0	0.0	0	0	100	0	
Eastern Phoebe	0.1	4	0.2	4	1.0	0.0	0	0	100	0	
Blue Jay	3.2	121	5.6	96	1.3	0.5	23	11	65	2	
Carolina Chickadee	2.3	87	2.4	41	2.1	1.7	0	1	98	1	
Tufted Titmouse	0.5	17	0.6	11	1.5	0.8	0	0	88	12	
Brown Creeper	0.0	1	0.1	1	1.0	—	0	0	100	0	
Carolina Wren	0.2	8	0.3	5	1.6	0.6	0	25	13	63	
Northern Mockingbird	5.2	196	11.1	190	1.0	0.2	12	21	53	14	
Brown Thrasher	1.0	36	2.0	34	1.1	0.3	47	17	36	0	
American Robin	4.2	158	8.7	149	1.1	0.3	56	4	32	8	
Hermit Thrush	0.2	8	0.5	8	1.0	0.0	25	13	38	25	
Eastern Bluebird	0.1	5	0.2	3	1.7	1.2	0	0	100	0	
Golden-crowned Kinglet	0.0	1	0.1	1	1.0	—	0	0	100	0	
Ruby-crowned Kinglet	0.9	34	1.8	31	1.1	0.3	3	29	65	3	
Cedar Waxwing	2.0	75	0.6	10	7.5	8.1	0	0	100	0	
Loggerhead Shrike	0.1	3	0.2	3	1.0	0.0	0	0	67	33	
European Starling	33.4	1,255	13.3	227	5.5	8.4	37	0	62	2	

Table 1. Continued.

Species	Bird abund.		Flock abund.		Flock size		Distribution (%)				
	%	No.	%	No.	Mean	SD	Grass	Shrub	Tree	Misc.	
Solitary Vireo	0.1	2	0.1	2	1.0	1.0	0	0	100	0	
Yellow-rumped Warbler	10.5	395	17.4	297	1.3	1.0	16	6	75	3	
Pine Warbler	0.2	7	0.4	7	1.0	0.0	14	0	86	0	
House Sparrow	5.8	217	4.5	77	2.8	2.8	9	7	54	30	
Eastern Meadowlark	0.0	1	0.1	1	1.0	—	100	0	0	0	
Great-tailed Grackle	0.3	10	0.4	6	1.7	0.8	0	10	70	20	
Common Grackle	3.2	120	3.3	56	2.1	2.5	35	3	61	2	
Brown-headed Cowbird	4.5	168	1.5	25	6.7	8.2	2	0	98	0	
Northern Cardinal	4.8	180	8.3	142	1.3	0.7	28	23	44	6	
Purple Finch	1.3	49	0.9	15	3.3	4.2	0	6	92	2	
American Goldfinch	0.9	34	0.2	3	11.3	12.3	0	74	27	0	
Dark-eyed Junco	0.7	28	0.8	14	2.0	1.5	46	0	54	0	
Field Sparrow	0.2	8	0.2	3	2.7	2.1	63	0	38	0	
White-throated Sparrow	8.7	327	5.6	96	3.4	3.1	52	24	23	1	
Total	100.0	3,762	100.0	1,706	2.2	3.9	27	7	61	5	

Table 2. Distribution of flock sizes of birds seen on 64 censuses of three residential areas in College Station, Texas, in the winter of 1976-1977.

	Flock size													
	1	2	3	4	5	6	7	8	9	10-19	20-29	30-39	40-49	50+
Number of flocks	1,222	231	74	38	22	18	5	21	12	34	20	5	3	1
Percent of flocks	71.6	13.5	4.3	2.2	1.3	1.1	0.3	1.2	0.7	2.0	1.2	0.3	0.2	0.1

Sparrows, cardinals, mockingbirds, and Blue Jays occurred in shrubs more than 10% of the time. House Sparrows, mockingbirds, and Mourning Doves used artificial perches extensively (30%, 14%, and 13% respectively). Of these, House Sparrows were seen on wires, bird feeders, and buildings, and mockingbirds and Mourning Doves were seen primarily on wires.

In conclusion, the relative abundance and distribution among the vegetative strata are obviously a direct function of the habitats in the residential areas censused. However, we believe that the results indicate that the most abundant species are generally ground feeding species, but that the greatest relative usage in urban neighborhoods of Central Texas is trees.

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GENERAL NOTES

Comments on Climbing Ability of the Common Barn-Owl

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We recently encountered a brief note by Hamilton and Hamilton (1981, *Bull. Texas Ornith. Soc.* 14:24) describing climbing behavior displayed by an adult female Common Barn-Owl (*Tyto alba*). When flushed from its nest inside a water tower, the female flew to the bottom rung of a steel-rod ladder inside the tower and climbed rung by rung to the top of the ladder and water tower opening (ladder length 3 m, angle 75°). Hamilton and Hamilton (1981) could not find any reference to barn-owl climbing in the literature and implied this behavior to be peculiar.

We have been investigating a Common Barn-Owl population in SW New Jersey (1980–present) and have documented about 350 barn-owl nestings (1984, Colvin, B. A. Barn owl foraging behavior and secondary poisoning hazard from rodenticide use on farms. Unpubl. Ph.D. dissertation, Bowling Green State Univ., Bowling Green, Ohio. 326 pp.). In our opinion, barn-owls are excellent climbers and such behavior is common.

Tree cavities are common nest sites for barn-owls (56 different nest trees observed in our study area) and, because of depth and restricted space, owls must enter and exit by climbing. We frequently have observed owls at night coming to nest-cavity entrances with prey, disappearing head first down into the cavities, and soon after climbing back out. Our best observation of a barn-owl climbing out of a tree cavity was during the day when a female flushed from a nest containing 3 young inside the base of a silver maple (*Acer saccharinum*). The cavity was 6.2 m deep, essentially vertical, and approximately 0.6 m in diameter. While observed from above, the owl ran vertically up the cavity wall to the exit with its wings only slightly ajar from its body.

We also have observed barn-owls climbing vertical and near vertical man-made structures such as chimneys and objects inside abandoned water towers. We have documented 4 chimney nest sites in New Jersey (4 others in Ohio). One of these nest sites, for example, was approximately 8 m deep. The property owner frequently observed owls passing by a stove-pipe hole (approx. 12 cm diam.) in the wall above the cemented-over fireplace in which the owls nested. In chimneys, when observed from above, owls walked or ran up the inside walls. In water towers, while making their way to the exit, owls frequently climbed or walked up leaning pipes, boards, or ladders when present.

Our most noteworthy climbing observation was made during the day inside a covered, 15-m high silo. Barn-owls had nested in a nest box inside the top of the silo, and both adults were captured by hoop net as they flushed out the slot in the silo top. After banding, they were released separately into the silo base. The male began flying in a circular pattern around the silo bottom to gain elevation in his ascent to the top, as typically occurs with adults released in this fashion. However, when approximately 4 m from the bottom, the owl grabbed a vertical steel cable that ran from the center of a silage unloader in the silo base to the center of the silo roof. The bird then began climbing the cable by placing one foot above the other. Its wings were held slightly ajar as it climbed and the vertical axis of its body was essentially parallel to the cable. When it was halfway up the cable, we released the female into the silo and witnessed an identical performance. We stopped observations when the female was halfway up the cable and the male was near the top; both adults were climbing steadily foot over foot. In other silos where we have released owls during the day, the steel cable was absent, and in such cases, upon release, owls regularly flew halfway to the silo top, perched momentarily on an open door from the climbing-well, and then completed the flight to the top.

The excellent climbing ability of the Common Barn-Owl is not surprising, given its cavity nesting behavior and the lack of room for much wing movement in such cavity situations. In addition, young owls reared in the base of a deep cavity must be able to climb in order to exit the cavity as they approach fledging age.

Notes on the Cattle Egret in the Trans-Pecos Region of Texas¹

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Telfair (1980) has discussed the establishment and expansion of Cattle Egret (*Bubculus ibis*) breeding areas in Texas. However, little information is available concerning their post-nesting dispersal migration routes through the state, especially the western areas. Early sightings in the Trans-Pecos were briefly summarized by Wauer (1973) and Oberholser (1974), with more recent sightings reported by Schmidt (1977), Miller (1978), West (1981), and Williams (1979, 1981). This note summarizes 10 of the observations (1967-1981), plus 45 additional sightings I made in the Trans-Pecos from January 1977 to March 1982.

Since their first sighting in October 1967 (Wauer op. cit.), Cattle Egrets have been recorded in the Trans-Pecos during every month of the year. The largest numbers occurring during early March to late April and late August to late October.

¹ Contribution of Federal Aid Project W-103-R.

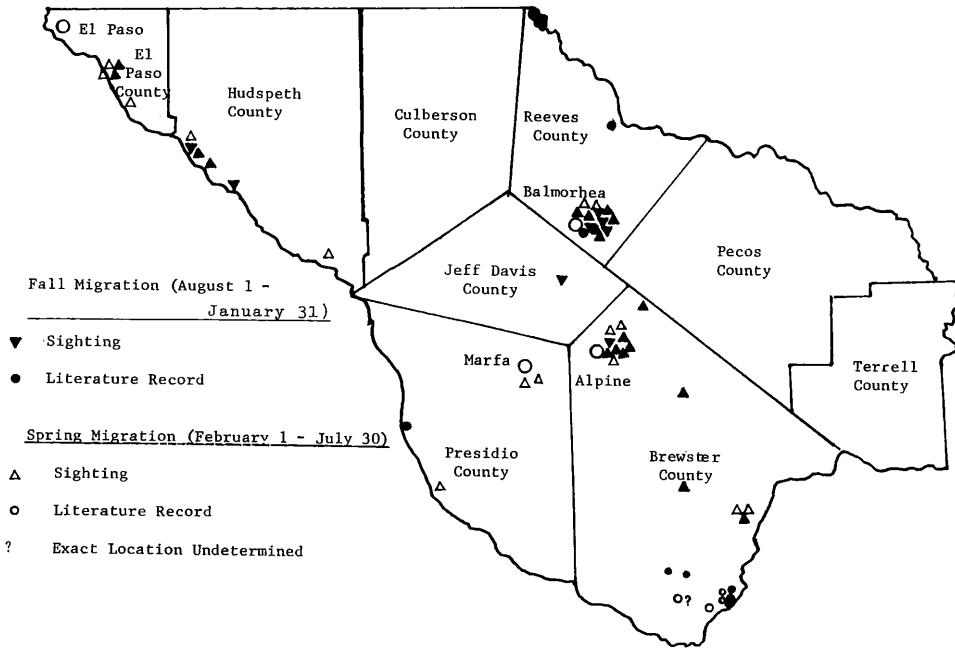


Fig. 1. Distribution of Cattle Egrets sighted in the Trans-Pecos of Texas.

Sightings during September and October have accounted for 387 (65.3%) of the 592 birds totaled from the above sources. I observed large numbers of Cattle Egrets migrating southward along the Texas coast in 1973–1976 during the same months.

Sightings have been made at widely scattered locations in the region (Fig. 1). The areas in which the largest number of sightings have occurred usually contain some form of surface water (Rio Grande, sewage ponds near Alpine and Marfa, and stockponds) or are farming areas (Balmorhea and lower El Paso and Hudspeth counties). Cattle Egrets found in the open rangelands are often near ranch headquarters or may use windmill towers as roosts. The average flock size of Cattle Egret in the region was 11.1 (Range 1–65 birds, number of flocks 52).

Little information is available on the nesting locations or migration patterns of Cattle Egrets sighted in the Trans-Pecos. A Cattle Egret banded in northcentral Texas as a nestling during the summer of 1976 and recovered north of Alpine, Brewster County, that fall, suggests one source (Swepston and Smith 1976). Expansion of the Cattle Egret's breeding range into the western United States (Witze-man et al. 1975; Rogers 1978, 1980; Kingery 1980) may be another source of fall and spring migrants in the Trans-Pecos. However, movements into and out of the Trans-Pecos from east of the Pecos River probably occur on a broad front as suggested by flocks sighted in Edwards and Val Verde Counties (April, 1978) and Ward County (September, 1981). Separation of the sightings by migration period (Fig. 1) failed to indicate travel routes within the region. It should be noted that these sightings have been made along major highways, tourist spots, or areas which serve to concentrate the birds; little information exists from the large

expanse of private land in the region. Additional data from these large areas would help delineate additional concentration areas and possibly establish migration routes.

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Lark Bunting (*Calamospiza melanocorys*) Breeding in the Edwards Plateau of Texas

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Lark Buntings (*Calamospiza melanocorys*) breed irregularly in the Panhandle and the Edwards Plateau (1963, Peterson, R. T. *A Field Guide to the Birds of Texas*, Houghton Mifflin Co., Boston, Massachusetts and Oberholser 1974, *The Bird Life of Texas*, Univ. Texas Press, Austin, Texas). Oberholser (op. cit.) lists three breeding records: eggs collected in Wilbarger County, and breeding sight records for Schleicher and Culberson counties. The Schleicher County record first reported by R. W. Quillin (1935, *Auk* 52:324–325) is the first published breeding record for the southern plains.

Large numbers of Lark Buntings nested in Crockett, Schleicher, and Reagan counties in May and June of 1981. These locations were north, and northeast of Ozona, Texas (Crockett and Schleicher counties). Some Lark Buntings were observed in Irion and Upton counties during May and June 1981, but I had no proof of nesting in these counties.

While working on a resource survey unrelated to birds, I went to ten ranches in Crockett County. The areas I visited had been randomly selected. Seven of

these ranches were nearly devoid of trees and with generally level topography. Each of the seven ranches had from a few to hundreds of Lark Buntings. The three ranches without buntings were hilly and were covered by brush.

All of the buntings were well (more or less evenly) distributed and not in the typical wintering flocks. While walking across the prairie, I accidentally flushed four females from their nests. I found the first nest containing six nestlings on 21 May 1981. The nest was 16.6 km south of Barnhart on Texas Highway 163 and approximately 6.9 km west of the road. On 22 May I found two additional nests with one and six eggs, respectively. The nests, about 130 m apart, were located near Texas Highway 163 approximately 15.1 km north of Ozona, Texas (Crockett County). The nest with one egg also contained a small limestone pebble. On 27 May I found a fourth nest containing five eggs. The nest was located 2.9 km north of U.S. Highway 190 and was in Schleicher County 0.4 km east of the Schleicher-Crockett county line. The nest was photographed and the eggs were the typical aqua blue color. Copies of the photographs have been deposited in the Texas Photo-Record File maintained at the Texas Cooperative Wildlife Collections, Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, Texas 77843.

On 13 June 1981 I conducted a U.S. Fish and Wildlife Service Breeding Bird Survey in Schleicher County. Birds were counted for three min along a designated route with stops at 0.5 mile intervals. A Lark Bunting was observed at each of three stops. At the last stop, I found one female during the three min interval and then afterwards I found an additional adult male and two recently fledged young. The fledglings were approached to within two meters. The fledglings had noticeably short tails and down on the breast and crown. On 23 June I found fledged young south of Big Lake in Reagan County.

The extent of the open prairie area where buntings were seen is about 115 km from east to west and 33 km from north to south. I believe thousands of Lark Buntings nested in this region in 1981. The area had above average rainfall since September 1980, and the ground cover was exceptionally dense. The above average rains and subsequent abundant food supply may have met the buntings' nesting requirements, thus allowing them to remain south of their usual nesting area.

Two Specimen Records of Leach's Storm-Petrel (*Oceanodroma leucorhoa*) for Texas

Gene W. Blacklock and Janey Peabody¹

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Leach's Storm-petrel (*Oceanodroma leucorhoa*) is a widespread pelagic species, breeding on offshore islands in the North Pacific and North Atlantic oceans. In migration and winter the Leach's Storm-petrel is considered common off the coasts of eastern North America, western North America, Central America, West Indies, northeastern South America and elsewhere (Palmer 1962, *Handbook of North American Birds*. Vol. 1, pp. 225-234. Yale Univ. Press, New Haven); the greatest population density generally occurs north of 30°N latitude.

Oberholser (1974, *The Bird Life of Texas*. Vol. I, pp. 74-75. Univ. Texas Press, Austin), and TOS (1974, *Checklist of Birds of Texas*. Texas Ornithol. Soc., Waco), describe the Leach's Storm-petrel as accidental in Texas. One photographic record is sighted—Padre Island surf, 31 May 1970 (Oberholser op. cit. 1974; Texas Ornithol. Soc. op. cit. 1974). Two specimens representing this species have been recovered in Texas since that time. Anne Maxim, found an adult male (testes—5 × 3 mm) on the gulf beach 2 mi N of Malaquite (Kleberg County) on 25 June 1975 (Welder Wildlife Foundation No. 1957). Tripp Howse found a second specimen in Corpus Christi (Nueces County) on 10 July 1976 (Corpus Christi Museum No. 76A136). found a second specimen in Corpus Christi (Nueces County) on 10 July 1976. This is Welder Wildlife contribution No. 305.

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Notes on the Brown Creeper in Texas

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Recently while checking the subspecific identification of Brown Creepers (*Certhia americana*), from the south-eastern states in the collection of the American Museum of Natural History, I reexamined six specimens from Texas.

Four of these were correctly identified as *C. a. americana*. They were collected
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27 February, and 18 and 19 March 1890 at San Antonio, and one (AMNH 374181) was collected at Anahuac in the Houston region of east Texas, 21 October 1916. All were sexed as females.

The other two were obviously different, having darker rumps. They were taken to the U.S. National Museum of Natural History for identification and proved to be *C. a. nigrescens*, the nesting subspecies of the higher Appalachian Mountains from West Virginia south to the Great Smokey of eastern Tennessee and adjacent North Carolina. The subspecies has not been previously reported from Texas, although it has been identified as a migrant from Louisiana, Mississippi and elsewhere in the southeast (AOU Checklist, 5th Ed, 1957). The two specimens, both sexed as females, were collected in the Houston region at High Island, 16 November 1916 (AMNH 374183) and at Seabrook, 18 December 1917 (AMNH 374185).

In the U.S. National Museum there are nine specimens from Texas of the subspecies *montana* from the Rocky Mountains. Four were collected at Frijole, one a juvenile collected 15 June, and represent the breeding population. The other four were collected at: San Antonio, 24 February 1890; Concho River and San Angelo, 18 and 19 January 1897; Del Rio, 29 December 1938; and Trinity, 5 January 1937. Oberholser (Birdlife of Texas, 1974) cited the Concho River and Trinity specimens.

NOTES AND NEWS

ABOUT THE ARTIST.—The illustration of the Red-tailed Hawk (inside front cover) is an original drawing by Sid Sullinger. Sid graduated from Texas A&M University with a BS degree in Wildlife Ecology. He is currently employed by the University of Texas-Lands. Sid's mailing address is P.O. Box 284, Big Lake, Texas 76932.

ATTENTION AUTHORS.—Original articles, reports and other items submitted for inclusion in the *Bulletin of the Texas Ornithological Society* should be sent to the editor, Terry C. Maxwell, Department of Biology, Angelo State University, San Angelo, Texas 76909.

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