

ARTICLE XXII.—*On the Birds observed near Corpus Christi, Texas, during parts of March and April, 1891.* By FRANK M. CHAPMAN.

The vicinity of Corpus Christi is by no means ornithologically new ground, Messrs. Sennett, Hancock, and Beckham having published notes based on personal experiences in this field, while an important paper by the last-named author, entitled "Observations on the Birds of Southwestern Texas," has recently appeared in the Proceedings of the United States National Museum (Vol. X, 1887, pp. 633-696). This excellent paper, the last written by Mr. Beckham before his death, contains not only much original matter, but also includes the species not met with by himself but recorded from this region by previous writers. Particular attention is given to the birds of Corpus Christi, and as a result of his own, Sennett's, and Hancock's observations, he gives a list of 139 species as having been found near that town.

The present paper is designed to supplement that portion of Mr. Beckham's which relates to the birds of the vicinity of Corpus Christi. It is based on notes and collections made from March 18 to April 25, 1891. During the first month of this period I resided in the chapparal about one and one-half miles west of the town, and from April 18 to 25, with Mr. J. M. Priour as guide, I camped at various places in the valley of the Nueces River, the most western point reached being only thirty miles from Corpus Christi. This trip was made in the interest of the American Museum of Natural History, and the specimens procured have been added to the collections of that institution.

On visiting this part of Texas the naturalist, whatever be the branch to which he devotes himself, finds his attention at first claimed by the character of the vegetation. There are no forested tracts in the vicinity of Corpus Christi, and but few open prairies, the country being more or less densely covered with the stunted growth known as 'chapparal.' This, however, is of two quite distinct kinds, one of which may be termed scrubby, the other mesquite chapparal. The first is the prevailing growth in the immediate vicinity of the coast; the second is mixed with, or replaces the first farther inland. The scrubby chapparal reaches

an average height of eight to twelve feet, and is largely composed of 'black chapparal,' ebony, catsclaw, and prickly-pear. These are all armed with formidable thorns or spines, which present no slight obstacle to the collector. They grow in impenetrable clumps of varying extent which are separated from one another by winding cow-paths, or glade-like openings where the grass is closely cropped by grazing herds. This was the home of Baird's Wren, the Texan Thrasher, the Texan Cardinal, and the Chapparal Cock, or 'Paisano del Monte,' as the Mexicans call him; here also Mocking-birds and Cardinals (*Cardinalis*) were more abundant than elsewhere.

The mesquite chapparal is formed by more or less open groves of mesquite, and huisache trees which here attain an average height of twelve to eighteen feet. These groves are very beautiful; they are comparatively free from undergrowth, and are carpeted with a rich growth of grass which here, as everywhere, is closely cropped by grazing cattle. In many localities the mesquite and scrub chapparal grow together, the last then forming an undergrowth, and ground of this nature proved the most valuable for collecting.

A third feature in the vegetation, of decided importance from an ornithological standpoint, is the groups of hackberry trees locally known as 'mottes.' These trees grow in clusters of three to ten, and, in size and shape, resemble apple trees of average proportions. Their heavy foliage makes them favorite roosting places for many species of birds, and flocks of migrant warblers visit them in search of insect food.

It is worthy of remark that all the growth just described is said to have largely appeared within the last twenty years, and each year is becoming more dense and steadily encroaching on the small area of open prairie still remaining. The advent of this heavy chapparal dates from the introduction of cattle and conversion of the region into a grazing country. The cattle, it is said, in keeping the grass short have prevented the extensive prairie fires, which were an effectual check to an increase in arborescent vegetation, and in feeding on the mesquite have distributed its seeds unharmed, thus further assisting in promoting the chapparal growth.

The banks of the Nueces River are narrowly skirted with timber to within ten miles of its mouth, when vast marshes intervene which reach to Nueces Bay. At the time of my trip up this river recent heavy rains had caused it to overflow its banks, and the timbered shores were therefore inaccessible. Barred and Great Horned Owls, met with in no other locality, were heard in the distance calling from these woods.

The marshes of Nueces Bay are of great extent. They are bordered by reeds and sedge, are dotted with numerous small ponds, and form excellent resorts for many species of water and marsh birds.

Contrary to the experience of Mr. Beckham I found birds abundant both in species and individuals, and of the 190 odd species observed, at least eighty-five were common.

In the chapparal and prairie openings, and along the roadsides, the birds which more than any others gave character to the avifauna were: Bartram's Sandpipers, Harris's Hawks, Chapparal Cocks, Golden-fronted Woodpeckers, Scissor-tailed Flycatchers, Great-tailed Grackles, Lark Finches, Cardinals (*Cardinalis*), and Mocking-birds, while on moonlight nights the whistled *Kër-wëe-you* of the Paraque could be heard on every side. On the waters and shores of Nueces Bay the commoner birds were: Mexican Cormorants, Herring, and Ring-billed Gulls, Brown, and White Pelicans, Shoveller Ducks, Great Blue Herons, Black Skimmers, Avocets, Willets, Greater, and Lesser Yellow-legs, and Wilson's Plovers.

The demand for birds for millinery purposes has sadly thinned the ranks of many species of water birds, especially Terns and Egrets. Royal, Caspian, Forster's and Gull-billed Terns were seen in limited numbers; but only twelve Great White and three Snowy Egrets were observed.

The distinctive birds of the marshes were Spotted Duck, Pectoral Sandpipers, Nelson's Sharp-tailed and Texan Seaside Finches, and Long-billed and Short-billed Marsh Wrens.

Four species of Swallows were always present in greater or less numbers, and at night the Great-tailed Grackles came to roost in the reeds.

The Migration.—When I reached Corpus Christi it was the height of spring. The mesquites had regained their delicate, graceful foliage; the air was fragrant with the rich perfume of huisache blossoms; soon a wealth of many-hued wild flowers appeared on the lawn-like prairie openings; the hedge-rows were brilliant with scarlet lantanas, and the leaves of the cacti (*Opuntia*) were fringed with large yellow flowers.

Purple Martins were already common, and the migration had apparently just commenced. Unfortunately the season proved to be an exceptionally late one, and at the time of my departure the northward movement was far from concluded.

The following list gives the migrants noted, arranged according to the order of their arrival from the South :

March 19.	Elanoides forficatus.	April 13.	Vireo belli.
“ 19.	Milvulus forficatus.	“ 13.	Icteria virens.
“ 20.	Chaetura pelagica.	“ 16.	Ajaja ajaja.
“ 23.	Bartramia longicauda.	“ 16.	Chordeiles virginianus henryi.
“ 24.	Dendroica virens.	“ 16.	Xanthocephalus xanthocephalus.
“ 25.	Myiarchus crinitus.	“ 17.	Guiraca cærulea.
“ 27.	Coccyzus americanus.	“ 17.	Helminthophila pinus.
“ 31.	Chelidon erythrogaster.	“ 17.	Passerina ciris.
April 2.	Petrochelidon lunifrons.	“ 20.	Piranga rubra.
“ 3.	Vireo olivaceus.	“ 21.	Sylvania mitrata.
“ 3.	Helminthophila peregrina.	“ 21.	Geothlypis formosa.
“ 5.	Icterus spurius.	“ 22.	Helminthophila celata.
“ 7.	Totanus solitarius.	“ 22.	Dendroica pensylvanica.
“ 10.	Tyrannus tyrannus.	“ 22.	“ æstiva.
“ 12.	Spiza americana.	“ 23.	Icterus bullocki.
“ 13.	Actitis macularia.	“ 23.	Seiurus aurocapillus.
“ 13.	Empidonax minimus.	“ 24.	Ictinia mississippiensis.
“ 13.	Contopus virens.	“ 25.	Setophaga ruticilla.
“ 13.	Icterus galbula.		
“ 13.	Passerina cyanea.		

The Faunal Position of Southwestern Texas.—The characteristic avifauna of the Lower Rio Grande region in southwestern Texas and northwestern Mexico is composed of two elements. The first is distinctively Sonoran, and includes those species which, ranging across the tableland of Mexico, or occurring on both the eastern and western slopes of the Sierra Madre, are found along the entire Mexican border of the United States.

The second element is composed of Neotropical species which are found in the lowlands of eastern Mexico, or if occurring also in western Mexico, do not there extend their range to our limits. The second element therefore includes species which occur in the United States only in the valley of the Lower Rio Grande.

Possessing few distinctive features, the limits of the Lower Rio Grande fauna, especially to the westward, are not clearly defined. Its southern boundary is the northern limit in eastern Mexico of the true Neotropical region. This, as Salvin and Godman have shown, coincides with the northern limit of forests. To quote from the authors mentioned: "These on the eastern side leave the coast a little north of Tampico and continue in a narrow belt along the eastern flank of the mountains in a north-every direction almost to Monterey" (Ibis, 1889, p. 242).

As we proceed westward and leave the low coast region a change, governed by increase in altitude, occurs. In Mexico this is more or less abrupt, and the rich fauna of the coast is replaced by the poorer fauna of the arid tablelands; in Texas the change is more gradual, and the passage from the Sonoran-Neotropical coast region is marked by the disappearance of the Neotropical element, and the appearance of Sonoran species which do not reach the coast. To the northward along the coast the change is more pronounced, and the Louisianian or Austroriparian fauna may be said to have been fairly reached at the mouth of the Colorado River.

REMARKS ON CERTAIN SPECIES OBSERVED.

Larus franklini. FRANKLIN'S GULL.—A male of this species was taken April 16. A flock of about two hundred was seen April 24 feeding over a flooded meadow on the banks of the Nueces River, about eighteen miles from its mouth. Their cries could be heard at the distance of a mile. Shortly after sunset they gathered in small flocks and flew down the river, probably to roost in the bay below. At dawn on the morning of the 25th, apparently the same gulls had returned to the feeding ground where the birds were seen on the previous day. A scattered flock of fifty were seen at noon on the 25th evidently migrating overland. As they approached the Nueces River they 'closed

ranks,' and in graceful spirals descended to the stream to drink, then arose and resumed their northward journey.

Anas fulvigula maculosa. SPOTTED DUCK.—This form of the Black Duck, which was described two years ago by Mr. Sennett from Corpus Christi examples, is a common inhabitant of the marshes about Nueces Bay. It feeds in the small ponds which everywhere dot the marshes, and in notes and actions resembles the Florida species (*Anas fulvigula*).

Spatula clypeata. SHOVELLER DUCK.—Abundant. April 25 a flock of about 300 Shoveller Ducks was observed. They were apparently mated and were said by Mr. Priour to remain throughout the year.

Branta canadensis hutchinsi. HUTCHINS'S GOOSE?—All the geese seen were migrating, and were at too great an altitude for me to distinguish the species, except in the case of Snow Geese, which were of course easily recognizable. On March 24, Snow Geese, and presumably Hutchins's Geese, which up to this date had been steadily migrating northward, were seen flying southward. It was clear, calm and warm, with no indication of the severe northerly wind storm which reached us on the following day, and before which the geese were evidently retreating.

Ajaja ajaja. ROSEATE SPOONBILL.—Two flocks, each containing seven birds, were seen April 16 at the mouth of the Nueces River. The bird is not known to breed in the vicinity of Corpus Christi, and was said by Mr. Priour not to appear there before the middle of April; presumably, therefore, after it has bred in some other locality.

Rallus elegans. KING RAIL.—Not uncommon in the marshes of Nueces Bay. So far as I know the call of this species has never been described. My identification of it is based on circumstantial evidence, but I have little doubt that the notes which on three occasions I have heard issue from marshes, where I had seen King Rails, were uttered by that species. This call resembles the syllables *büp, büp, büp, büp, büp*, uttered with increasing rapidity until the syllables are barely distinguishable, then ending somewhat as it began. The whole performance occupies about five seconds.

Ereunetes pusillus. SEMIPALMATED SANDPIPER. — **Ereunetes occidentalis,** WESTERN SANDPIPER.—April 25, a male of the first-named species and two females of the last-named were secured from a small flock of sandpipers.

Recurvirostra americana. AMERICAN AVOCET.—Not uncommon near the mouth of the Nueces River. The use of the Avocet's recurved bill is clearly explained by the manner in which the bird procures its food. In feeding they wade into the water and drop the bill below the surface until the convexity of the maxilla probably touches the bottom. In this position they move forward at a half run and with every step the bill is swung from side to side sweeping through an arc of about fifty degrees in search of shells and other small aquatic animals. The mandibles are slightly opened, and at times the birds pause to swallow their prey. It is evident that birds with a straight or a downward curved bill could not adopt this method of feeding.

Bartramia longicauda. BARTRAMIAN SANDPIPER. UPLAND PLOVER.—Upland Plovers were first observed March 23, and their softly-whistled call, as they arose from the prairie or flew overhead in loose flocks of five to fifteen individuals, soon became one of the characteristic bird notes. So abundant were these birds during early April that two men shooting from a gig killed one hundred and thirty in one day.

Ægialitis wilsonia. WILSON'S PLOVER.—Common. A nest found April 25 was placed in some short grass about fifty feet from the water. It was composed of a few straws placed at the bottom of a slight depression in the sand, and contained three fresh eggs.

Meleagris gallopavo. WILD TURKEY.—Wild Turkeys were common near the Nueces River twenty to thirty miles west of Corpus Christi. We found no difficulty in stalking them with the aid of a pony, and a number of specimens were secured. The greater number roost in the timber which grows on the banks of the river, but some pass the night in the hackberry 'mottes' of the chapparal.

The relationships of the Wild Turkey of southwestern Texas will be discussed in a future paper by Mr. George B. Sennett.

Elanus leucurus. WHITE-TAILED KITE.—Two birds of this species frequented the marshes at the mouth of the Nueces River. One was secured on April 16. They hunt by hovering over the reeds, sustaining a position facing the wind and about forty feet from the earth by a gentle movement of the wings, or occasionally, for a moment, by holding the wings upstretched over the head. Their prey seems to consist of small birds.

Ictinia mississippiensis. MISSISSIPPI KITE.—This species was first observed April 24, when nine individuals were seen flying northward. The following day we crossed a great flight of these birds. They could be seen to the limit of vision both to the north and south, and about twenty-five were in sight at one time. They flew northward at varying heights; some were within gunshot, while others were so far above the earth that they looked no larger than swallows.

Parabuteo unicinctus harrisi. HARRIS'S HAWK.—The common hawk of the region. Several nearly completed, but as yet empty nests, found April 14, were placed in the tops of the scrubby chapparal bushes about ten feet from the ground.

Buteo borealis. RED-TAILED HAWK.—Not common. A nest found April 23 was placed in the top of a hackberry tree about twenty-five feet from the ground. It was well made of sticks and lined with grasses, and contained two young about three days old; these with the female parent were secured, but the male was not seen. The adult specimen (Am. Mus., No. 54,997) shows an approach to *krideri*; it is without black markings on the underparts, and the tail lacks the subterminal black bar of *borealis*.

Buteo lineatus. RED-SHOULDERED HAWK.—Seen only in the Nueces Valley about twenty miles west of Corpus Christi.

Texas specimens of the Red-shouldered Hawk have become differentiated from true *lineatus* in somewhat the same manner as has *Buteo lineatus alleni* of southern Florida. It is not probable, however, that there is a direct connection between the Florida and Texas birds. Examples from north Florida are referable to *lineatus*, and ten adult specimens from near New Orleans are all typical of the same species.

Speotyto cunicularia hypogæa. BURROWING OWL.—In the paper already referred to Mr. Beckham says of this owl: "In the immediate vicinity of Corpus Christi it seemed to be abundant, as I rarely went out without seeing one or more." An increase in vegetation or some unknown cause has apparently driven this species from its former haunts. I did not see nor hear of an individual during my stay.

Colaptes auratus. FLICKER.—A female taken March 26 was the only bird of this species observed. In the British Museum Catalogue (Vol. XVIII, p. 18) specimens are recorded from Papalote, near Corpus Christi, and this locality apparently forms the southern limit of the Flicker's range on the west Gulf Coast.

Pyrocephalus rubineus mexicanus. VERMILION FLY-CATCHER.—This species is unknown in the immediate vicinity of Corpus Christi, and apparently finds its eastern limit in the mesquite groves of the Nueces Valley about twenty-five miles west of the town, where, on April 24, I secured three specimens. Specimens from Texas and Arizona are alike and differ from Mexican and Central American examples in being larger with smaller bills, as the following measurements show: Six adult males from Arizona and Texas average: wing, 3.25 in.; tail, 2.32; exposed culmen, .45; six adult males from Honduras average: wing, 2.91 in.; tail, 2.13; exposed culmen, .50.

Ammodramus lecontei. LECONTE'S SPARROW.—On the Nueces marshes there were a few of these elusive little sparrows, and two specimens were obtained. They frequented the tall grass bordering the denser growth of reeds and sedge in which, on being flushed, they at once sought concealment.

Ammodramus caudacutus nelsoni. NELSON'S SHARP-TAILED FINCH.—Common in the marshes of Nueces Bay. No songs were heard, and specimens of both sexes, secured on April 16, showed no signs of breeding.

Although its occurrence is naturally to be expected, this species has apparently not hitherto been recorded from Texas.

Ammodramus maritimus sennetti. TEXAN SEASIDE FINCH.—A common bird in the marshes of Nueces Bay. Its song consists of four and rarely five notes; the second note is accented [September, 1891.]

and is the highest; the third and fourth resemble the first. A partially formed egg was found in the oviduct of a female killed April 16.

Comparison of the thirteen specimens secured, with an equal number of true *maritimus* in fresh breeding plumage, show this bird to be a well-marked race distinguished chiefly by its more olivaceous coloration and the black centres to the feathers of the nape and interscapular region.

Ammodramus maritimus peninsulae?—March 25, in the marshes near the mainland end of the Aransas Railway trestle, I secured two specimens of a black Seaside Finch, which for the present I refer to the above-named form, from which they differ in being darker, with gray instead of olivaceous edgings to the feathers. Three other individuals, apparently similar to those secured, were seen in the same locality; but the commoner *sennetti* was not observed there. Mr. J. M. Priour assured me that this Seaside Finch was a permanent resident; a statement which I unfortunately did not have an opportunity of verifying. The subject is one of unusual interest. If this bird is a winter resident it simply extends the range of *peninsulae*, or a close ally, from Grand Isle, La., to southwestern Texas; but if it proves to be a resident we shall have two Seaside Finches breeding in the same locality—a condition of affairs the relationships of *peninsulae* have not led us to expect.

***Cardinalis cardinalis canicaudus*, subsp. nov.**

(GRAY-TAILED CARDINAL.)

Char. subsp.—Male similar to the male of *Cardinalis cardinalis*, but with a less conspicuous black frontlet; female averaging grayer than the female of *Cardinalis cardinalis*, and with the tail feathers broadly margined with gray instead of being narrowly edged with olivaceous brown.

Description of Male Type (No. 54,935, Coll. Am. Mus. Nat. Hist., adult male, thirty miles west of Corpus Christi, April 23, 1891. Collected by Frank M. Chapman. Collector's No. 2002).—Head, crest, neck and underparts bright scarlet vermilion, back darker and grayer, the feathers more or less tipped with gray; wings and tail darker than the underparts, the feathers without grayish edgings; linings of the wings scarlet, paler therefore than the underparts; throat, chin, feathers at the base of the lower mandible, lores, and a narrow frontal line, which is separated from its fellow by the base of the culmen, black. Wing, 3.65 in.; tail, 4.10; culmen, .72.

Description of Female Type (No. 54,937, Am. Mus. Nat. Hist., breeding female, thirty miles west of Corpus Christi, Texas, April 23, 1891. Collected by Frank M. Chapman. Collector's No. 2004).—Forehead, crown, except the crest, sides of the head, except the region at the base of the bill, back and rump olivaceous gray; crest, wings and tail dull red, the feathers all margined with grayish; on the tail this grayish margin occupies nearly one-half of both vanes of the median feathers, is as wide on the outer vane of the next pair, and decreasing in width outwardly is wanting on the extreme outer feathers; underparts, except the chin and upper throat, buffy whitish, deeper on the breast and whiter on the abdomen; tibiae reddish, mixed with buffy; linings of the wings scarlet; upper throat, chin, feathers at the base of the lower mandible and lores, grayish. Wing, 3.43 in.; tail, 3.75; culmen, .69.

Habitat.—Southwestern Texas, south into northeastern Mexico.

This new form of the Cardinal presents unexpected characters. The slight variation from true *cardinalis* presented by the males is towards the Arizonan *superbus*; the females, however, have departed from the *cardinalis* type in just the opposite direction; that is, the females of the eastern *cardinalis* are nearer those of *superbus* than are the females of *canicaudus*. Of the Mexican *coccineus* I have but a single specimen, a male from Vera Cruz, in fresh and unworn plumage. Its entire plumage is brighter and more deeply colored than that of *canicaudus*. The female of *coccineus* is said by Mr. Ridgway to have the capistrum "dark grayish or grayish black, very distinct"; in *canicaudus* the capistrum is grayer and less clearly defined than in *cardinalis*. The most important and striking diagnostic character in *canicaudus* is the coloration of the tail. Only one specimen in a series of twenty-six females of true *cardinalis* from the Mississippi Valley and South Atlantic States has the tail more widely margined with gray than the least typical bird in my series of twelve females from southwestern Texas. In some of the Texan specimens the gray color occupies nearly all of both vanes of the median feathers, leaving only a narrow, reddish shaft streak; in most cases the gray occupies all of the tip of the feather, and when seen from below gives the appearance of an irregular terminal grayish band.

Seasonal variation is shown by the males in the wearing away of the gray tips on the feathers of the upper surface, leaving the bird in worn breeding plumage with little or no trace of grayish

on the upper surface ; fall and winter females are browner and much more richly colored than breeding specimens.

Embernagra rufivirgata. TEXAS SPARROW.—A not uncommon inhabitant of the scrubby chapparal. It is a retiring bird, seldom leaving the dense growth it frequents, and for this reason is much more frequently heard than seen. So far as I am aware it has not been previously recorded from north of the Rio Grande.

Spiza americana. DICKCISSEL.—The first Dickcissel was seen on April 12, when a single bird was noted ; the following day several small flocks were observed, and after this date they were abundant. They moved in flocks of as many as three hundred individuals, and were so closely massed that in the distance these flocks resembled small clouds passing rapidly across the sky. When they alighted on the prairie to feed, they presented an animated sight. There was a constant passing of birds from the rear to the front of the column. Occasionally a part of a song or a single, reedy, *cack* note was heard, but as a rule the birds were silent when in flocks, and the reedy call-note was more frequently uttered by stray individuals. On cloudy nights this note was heard from birds passing overhead, which probably had wandered from their companions.

On the evening of April 19, Dickcissels, which had been flying north in great numbers, were seen flying with equal earnestness to the southward. On the morning of the following day we were visited by a terrific northwest storm of wind and rain.

Stelgidopteryx serripennis. ROUGH-WINGED SWALLOW.—Common ; at times even more abundant than the Tree Swallows. Frequently in walking through the marshes on Nueces Bay we would be surrounded by active bands of Swallows—the two species just mentioned, with Barn and Cliff Swallows. They would dart about us in confusing circles, almost within reach, feeding on the winged insects which our passage had roused from their resting places in the tall grass. If we paused in our tramp the Swallows immediately left us and scattered over the marsh, only to return when we resumed our journey and furnished them with a fresh supply of insect prey.

The effect of a coming northerly storm in driving migrating birds to the southward, mentioned under the preceding species, was also noticeable among Swallows, large numbers of which were seen flying southward on the evening of April 19.

Vireo belli. BELL'S VIREO.—A nest of this species containing four eggs was found on April 24.

Thryothorus ludovicianus. CAROLINA WREN.—Rare in the vicinity of Corpus Christi. A male, secured April 10, is apparently intermediate between *ludovicianus* and the Rio Grande *lomitensis*.

Cistothorus stellaris. SHORT-BILLED MARSH WREN.—Common in the Nueces marshes where, on April 16, it was in song. Seven specimens agree with eastern examples.

Cistothorus palustris. LONG-BILLED MARSH WREN.—Not uncommon in the Nueces marshes.

Parus bicolor texensis. TEXAN TUFTED TITMOUSE.—A single Tufted Titmouse was seen April 24, but not secured.

Parus atricristatus. BLACK-CRESTED TITMOUSE.—A male with a white frontlet was taken March 18, and was the only one observed.

The following list contains all the birds observed by me which were not recorded by Mr. Beckham from Corpus Christi :

Larus franklini.	Totanus melanoleucus.
Fregata aquila.	“ flavipes.
Anas fulvigula maculosa.	“ solitarius.
Branta canadensis, sub. sp.	Bartramia longicauda.
Botaurus lentiginosus.	Actitis macularia.
Rallus elegans.	Charadrius squatarola.
Porzana carolina.	Ægialitis meloda.
Fulica americana.	“ wilsonia.
Tringa canutus.	Elanus leucurus.
“ maculata.	Ictinia mississippiensis.
“ minutilla.	Parabuteo unicinctus harrisi.
“ alpina pacifica.	Buteo lineatus.
Ereunetes pusillus.	Haliæetus leucocephalus.
“ occidentalis.	Falco columbarius.

Pandion haliaëtus carolinensis.	Embernagra rufivirgata.
Strix pratincta.	Guiraca cærulea.
Sphyrapicus varius.	Spiza americana.
Colaptes auratus.	Petrochelidon lunifrons.
Antrostomus carolinensis.	Chelidon erythrogaster.
Chordeiles virginianus henryi.	Stelgidopteryx serripennis.
Chætura pelagica.	Vireo noveboracensis.
Tyrannus tyrannus.	Helminthophila peregrina.
Contopus virens.	Dendroica æstiva.
Empidonax minimus.	“ pensylvanica.
Molothrus ater obscurus.	Seiurus aurocapillus.
Xanthocephalus xanthocephalus.	Geothlypis formosa.
Icterus galbula.	Icteria virens.
Ammodramus lecontei.	Sylvania mitrata.
“ caudacutus nelsoni.	Harporhynchus rufus.
“ maritimus sennetti.	Thryothorus ludovicianus.
“ peninsulæ.	Cistothorus stellaris.
Peucæa cassini.	Parus bicolor texensis.
Spizella socialis.	“ atricristatus.

The species recorded by Mr. Beckham which were not observed by me are the following :

Urinator imber.	Grus mexicana.
Sterna sandvicensis acufflava.	Gallinago delicata.
“ fuliginosa.	Hæmatopus palliatus.
Lophodytes cucullatus.	Aquila chrysaëtos.
Aix sponsa.	Speotyto cunicularia hypogæa.
Aythya americana.	Ceryle cabanisi.
“ vallisneria.	Melanerpes carolinensis.
Glaucionetta clangula americana.	Pipilo maculatus megalonyx.
Grus americana.	Oroscoptes montanus.