

zards there was also some kind of hard vegetable matter that I could not determine, and some coarse sand; but there were no remains of insects.

The laying up of such abundant stores of food for winter use, in so many places easy of access, and the precautions taken to conceal them, all show a high degree of intelligence in these birds.

The above observations were made in the village of Irvington, near Indianapolis, Ind.

ON THE AVI-FAUNA OF PINAL COUNTY, WITH REMARKS ON SOME BIRDS OF PIMA AND GILA COUNTIES, ARIZONA.

BY W. E. D. SCOTT.

With annotations by J. A. Allen.

(Continued from p. 24.)

137. *Coccothraustes vespertina*. EVENING GROSBEAK.—The only locality at which I met with this species was in the pine wood region of the Santa Catalina Mountains, November 26-29, 1884, as already noted. (See Auk, Vol. II, No. 2, p. 174, April, 1885.)

138. *Carpodacus purpureus californicus*. CALIFORNIA PURPLE FINCH.—During several years of collecting in the region under consideration, this species was not met with; and, therefore, I must assume that it is not of regular occurrence. But during the fall of 1885, beginning early in November, I found large flocks in the cañon near my house in the Catalinas. The first flock, noticed on November 11, was, as far as could be ascertained, composed of birds in immature plumage and mostly females. On November 30, I took a male in full plumage, the first I had noticed. All through December and January they were common in both phases of plumage, but a perceptible diminution of adult males was noticed early in February. About the middle of February the species began to disappear. This is the only point where I have noticed their occurrence. They fed almost exclusively on the ripe seed-balls of the sycamore, this season very abundant.

[Among the birds received from Mr. Scott are 12 adult males, 5 young males in the plumage of the female, and 18 females. These appear to differ in no appreciable way from California examples. Mr. Scott's

record, as above, is the first for the Southern Rocky Mountain region. As he suggests, their appearance there is doubtless unusual, and doubtless to be considered as a temporary incursion from the Pacific coast region.—J. A. A.

139. *Carpodacus cassini*. CASSIN'S PURPLE FINCH.—The first records I have of this species were made in the pine region of the Catalinas late in November, 1884. (See Auk, Vol. II, p. 173.) Later in the same year they were present near my house, feeding on the young buds of cottonwood. My notes speak of them as not uncommon through February and March at this point, females and immature birds largely predominating. The latest note of 1885 is on April 27, when, at the same locality, a single one was seen and taken, moulting. I did not meet with them in the mountains afterward, but saw a large flock, many in adult plumage, at Tucson, February 19, 1886.

140. *Carpodacus frontalis*. HOUSE FINCH.—An abundant summer resident, breeding both about Tucson and in the Catalinas up to an altitude of about 6500 feet. They are present about Tucson in smaller numbers during the colder months. This is also true of the species in the lower foothills of the Catalinas, though here they are not nearly so common in winter as about Tucson. The regular migration brings them back to these mountains in large numbers late in February. At first they are in flocks of considerable size, but soon pair and by the third week in March begin nesting. The nesting site is usually in a cholla at no great distance from the ground. I have records of nests, however, sixty feet from the ground in sycamores, and in almost every variety of bush and tree.

141. *Loxia curvirostra stricklandi*. MEXICAN CROSSBILL.—During my visit to the Catalinas in November, 1884, I did not meet with any Crossbills, though careful search was made. But on a subsequent visit to the same locality, November 3-8, 1885, I found the species abundant and quite generally distributed throughout the pine woods. They fed almost exclusively on the seeds of the pine and seemed to affect the vicinity of streams or brooks, constantly going to drink. Now and then I noticed single birds alight on the ground, apparently in search of seeds that had been dropped.

[Fifteen specimens were sent to me by Mr. Scott. They were forwarded to Mr. Brewster for examination in connection with Professor Dyche's specimens obtained at Lawrence, Kansas, and form a part of the Arizona material referred to by Mr. Brewster in his note to Professor Dyche's paper published in 'The Auk,' Vol. III, pp. 260-261.—J. A. A.]

142. *Spinus tristis*. AMERICAN GOLDFINCH.—My records of this species are very limited and were all made near my house in the Catalinas. They are as follows:

December 19, 1885. Flock of three, two males and a female: all adult and in winter plumage. December 30, 1885. Took two adults,—all that were seen. February 4, 1886. Took a single female.

So far as I am aware, Mr. Brown has not found this species about Tuc-

son. All the individuals that I have seen were feeding on the ripe seed ball of the sycamore.

[Six specimens in winter plumage are strikingly different from the eastern bird in corresponding plumage. The white edging of the feathers of the wings and tail in the Arizona bird is much broader; the dorsal surface is much lighter, the yellow of the throat is much purer, lacking almost wholly the greenish shade seen in the eastern bird; the white of the belly is purer, with a faint fulvous instead of grayish shade; the sides are washed with a paler shade of fulvous brown, in quite strong contrast, however, with the almost pure, solid white of the abdomen and lower tail-coverts. If summer specimens should show correspondingly paler tints in comparison with eastern examples, as they are almost sure to do, the Arizona form is quite as well entitled to recognition as a subspecies as are several of the pallid forms of Sparrows which have been accorded this rank.—J. A. A.]

143. *Spinus psaltria*. ARKANSAS GOLDFINCH.—This species, as well as its close ally, *Spinus psaltria arizonæ*, seems in the Catalina region to be rather nomadic and never very common. The following records from my note book will show the manner of their occurrence: Pepper Sauce Cañon, Catalina Mountains, September 16, 1884. One taken, No. 893, an adult male. The testes in this individual were fully as large as in the height of the breeding season. The birds are rather common. Several seen to-day. Same locality, January 12, 1885. Noted; rare. Same locality, March 19, 1885. No. 1916, male; has the testicles as fully developed as in the breeding season. Same locality, April 16, 1885. Pair taken (No. 2172, male; No. 2173, female), apparently mated. On dissection both proved to be adult, though the male is not in full plumage. Probably *psaltria*. They were about to breed, as the testicles of the male were fully developed and the eggs of the female were, some of them at least, half formed and would have been laid at an early day. Same locality, February 10, 1886. Male in full plumage taken, the first seen in two months. The only one noted; feeding on cottonwood flowers. Same locality, July 18, 1884. A number of young seen to-day, fully fledged and no longer with parents. No. 567, young male taken. Same locality, May 5, 1885, No. 2418, female, young of year.

I have been unable to find the nest of this species and am puzzled as to its exact breeding habits, especially with regard to time of year, but a careful consideration of the above notes leads me to believe that the period of breeding extends over a considerable portion of the year.

144. *Spinus psaltria arizonæ*. ARIZONA GOLDFINCH.—This subspecies is much more uncommon in the Catalinas—the only point where I have met with it—than the foregoing. Indeed, I find it difficult to distinguish the transition from true *psaltria* to this form, and again from this form to *Spinus psaltria mexicanus*. Alone each seems distinct. A series placed together renders it doubtful where to draw the dividing lines. All of the examples that I can refer to this subspecies were taken near my house in the Catalinas, as follows:

No. 68, ♂ *ad.* June 13, 1884. Is very dark and intense in color, forming a near approach to *mexicanus*. No. 2663, ♂, May 28, 1885. Typical *arizonæ*. No. 2566, ♂, May 19, 1885. Typical *arizonæ*. This very meagre material is all that has come under my immediate notice.

145. *Spinus lawrencei*. LAWRENCE'S GOLDFINCH.—This species I have not met with, but a female was taken by Mr. Herbert Brown on February 28, 1886, to which he kindly called my attention soon after its capture. Mr. Brown also saw the male bird but was unable to get it.

146. *Spinus pinus*. PINE FINCH.—A rather common, and at times an abundant fall and winter visitor in the Catalina Region, ranging as low as an altitude of 3500 feet. The first fall record I have is October 28, and I have seen them as late as April 16. This was in the vicinity of my house, at an altitude of about 4500 feet. During the winter of 1885-86 this species was associated with flocks of *Carpodacus purpureus californicus*, feeding on the fruit of the sycamore, and was rather common all through the season.

[The considerable number of specimens of this species sent by Mr. Scott, are uniformly somewhat lighter colored than eastern examples, but the difference is much less than that noticed above as occurring between eastern and western specimens of *Spinus tristis*.—J. A. A.]

147. *Calcarius ornatus*. CHESTNUT-COLORED LONGSPUR.—On the mesas of the foothills of the Santa Catalinas, near American Flag (altitude about 3500 feet), I took a single individual of this species, and saw a large flock on November 11, 1885. These are the only times that it was met with.

148. *Poocætes gramineus confinis*. WESTERN VESPER SPARROW.—In general a fall and spring migrant in the Catalina region, which is the only point at which I have notes of their occurrence. During these seasons they are quite common, and a few winter in the same locality. I saw a small flock and took a male (No. 1635) in Mesquite Cañon, altitude 3500 feet, January 24, 1885. On March 12, 1885, there were many everywhere on the mesas of the Catalina foothills.

149. *Ammodramus sandwichensis alaudinus*. WESTERN SAVANNA SPARROW.—Mr. Brown informs me of the occurrence of this species, rather sparingly, about Tucson in fall, winter, and spring. I have not met with it myself.

[I have received from Mr. Brown a specimen taken in the Rincon Mountains, Arizona, May 8, 1886.—J. A. A.]

150. *Ammodramus savannarum perpallidus*. WESTERN GRASSHOPPER SPARROW.—Apparently a rather uncommon resident on the mesas of the foothills of the Catalinas. The following are all the references to it contained in my note book: Hills above Old Hat Cañon, altitude 3750 feet, January 29, 1885. Took an adult female (No. 1682); saw no others, but observed another on January 24 in Mesquite Cañon, at a somewhat lower altitude. Both of these were found in thickets of cat-claw mesquite and *not* in a grassy region. Same locality, March 22, 1885. Took a female (No. 1946), the only one seen.

151. *Chondestes grammacus strigatus*. WESTERN LARK SPARROW.

—Though resident about Tucson, and at the lower altitudes of the region under consideration, they are common in the Catalina region, where they range up to about 5000 feet, only during the warmer months, and I have not met with them at all in the winter. A few were noted in the hills above Old Hat Cañon on May 11, 1885, the first of the season. They breed in this locality, and though I have found no nests, I have taken the young fully fledged in the first plumage.

152. *Zonotrichia leucophrys*. WHITE-CROWNED SPARROW.—This species, in comparison with the next, is apparently rare. I have met with it in September, February, and May, in small numbers, associated with the next.

153. *Zonotrichia intermedia*. INTERMEDIATE SPARROW.—Observed from the last week of September till late in May. The greater part seen in September were in immature plumage.

154. *Spizella socialis arizonæ*. WESTERN CHIPPING SPARROW.—My notes in regard to this form are all from the Catalina region. They indicate that the species is rare in summer, and abundant during the fall, winter, and spring. Mr. Brown has found it common about Tucson in winter. In the Catalinas the birds seem to frequent the bottoms of the wider cañons, feeding on seeds of various grasses, and congregating in large flocks, sometimes numbering several hundred individuals. In March they begin to take on the spring plumage.

[The series of 46 specimens of this form sent by Mr. Scott are mostly in winter plumage, but the considerable number of spring specimens well sustains Mr. Brewster's remarks (Bull. Nutt. Orn. Club, Vol. VIII, pp. 190-191) respecting the differences that may be regarded as characteristic of the western race of *S. socialis*.—J. A. A.]

155. *Spizella pallida*. CLAY-COLORED SPARROW.—I have met with this species only at Mineral Creek, in October and November, and in March.

156. *Spizella atrigularis*. BLACK-CHINNED SPARROW.—Apparently a very rare species throughout the area under consideration. I met with it at the head waters of Mineral Creek on several occasions in October, 1882, and once in the Catalina region, Feb. 26, 1885.

157. *Junco hyemalis*. SLATE-COLORED JUNCO.—A rare species, though of regular occurrence in the Catalina region, which is the only point where I have met with it. I took a male (No. 1576) in Old Hat Cañon, Jan. 8, 1885, the only one seen. It was associated with a large flock of other Juncos, the prevailing form being *J. hyemalis oregonus*. I also took a male Feb. 10, and a female Feb. 11, 1886, near my house.

[The two specimens sent are quite indistinguishable from eastern examples.—J. A. A.]

157a. *Junco hyemalis oregonus*. OREGON JUNCO.—The commonest form of Junco in the Catalinas during the colder months. They arrive about the last of October and remain till about April 1.

158. *Junco annectens*. PINK-SIDED JUNCO.—This does not seem a very common form in the Catalinas, the only point where I have observed

it, but the specimens obtained seem to be very characteristic. I generally found it associated with *oregonus*, but have seen small flocks of this species alone, notably in the pines of the Catalinas, altitude 10,000 feet, from November 3 to 8 inclusive, 1885. They were rather common in Pepper Sauce Cañon during the later part of February, 1886, but I did not detect their presence in the pine region above alluded to in April, 1885.

159. *Junco caniceps*. GRAY-HEADED JUNCO.—Next to *oregonus*, this is probably the more common form of Junco, in the foothill region of the Catalinas during the colder weather. My notes indicate that it arrived about my house in the Catalinas October 15, 1884, and became common in a few days. It was abundant in the pine region during my visit, from November 26 to 29, 1884. During January and February, 1885, I saw it almost daily near my house, and late in the latter month noted it as particularly abundant. It was, however, uncommon during the winter of 1885 and 1886 in the same locality. I have taken this form later in the spring, at and about my house, than any of the other Juncos, but did not find it in the pines of the Catalinas in April.

160. *Junco cinereus palliatus*. ARIZONA JUNCO.—I have discussed the occurrence of this species in the pine woods of the Catalinas in a former number of this journal (*Auk*, Vol. II, pp. 174, 354-355), where it is referred to as *Junco cinereus*. It remains to be added that I also found it in the pine forests of the Pinal Mountains, above Mineral Creek, where it was apparently rare. This was late in October, 1882. In the cañons of the foothills of the Catalinas, and about my house, it is the earliest form to appear in the fall, and a few remain during mild winters. But during the winter of 1885-86, which was severe, I only detected it on a single occasion, February 10, 1886.

160a. *Junco cinereus dorsalis*. RED-BACKED JUNCO.—Two Juncos taken in the Catalinas near my house are fairly referable to this form, though No. 1522, a male, had the bright colored sides of the *J. cinereus palliatus*. The following are the records of the two birds in question taken from my note book: Pepper Sauce Cañon, Catalinas, January, 1885, altitude 4500 feet. Took an adult male (No. 1522), which in color is typical of this subspecies, but with bright yellow irides. April 7, same locality, took a female (No. 2122).

[The very interesting series of Juncos in Mr. Scott's collection numbers 197 specimens, of which 2 are referable to *hyemalis*, 80 to *oregonus*, 27 to *annectens*, 35 to *caniceps*, 3 to *dorsalis*, and 50 to *palliatus*. These numbers may doubtless be taken as a fair index of the relative abundance of these forms in the region under consideration. The specimens referable to *oregonus* and *annectens* call for no special notice. About one-third of the *caniceps* series show more or less red on the crown, corresponding in tint to that of the back. In several it tinges, more or less strongly, fully one-half of the crown; in others it is restricted to a few well-defined streaks. That it is not a seasonal feature is shown by its presence in May specimens as well as in October ones. It is also traceable in a few specimens of *palliatus*. There is thus a tendency toward the development of a red crown in at least the *caniceps* form.]

Of the three specimens of *dorsalis* one has the bill wholly black and of exceptionally large size.

The *palliatus* series presents much variation in respect to the extension of the red upon the secondaries and the wing-coverts, from those showing but a slight trace of it on these parts, and thus barely separable from *dorsalis*, to those having the greater coverts and inner secondaries as red as the back. In short, the intergradation between these two forms is shown to be complete by the specimens in Mr. Scott's series.

In early spring specimens of both *caniceps* and *palliatus*, the red of the dorsal region is of a much lighter and brighter tone than in autumnal specimens.—J. A. A.]

161. *Amphispiza bilineata*. BLACK-THROATED SPARROW.—A common resident in the foothill region of the Catalinas, and also abundant about Tucson. It breeds commonly at both points, and generally at suitable elevations and localities throughout the region under consideration. In the Catalinas, up to an altitude of 4500 feet, it is rather more abundant in spring and fall than during the breeding season or in the winter. At this point the breeding season begins early in March, and continues well into the latter part of the summer. A male taken near my house, August 16, 1884, had the testes developed to fully as great an extent as at any time during the breeding period. The number of eggs varies from two to five, three or four being the general complement. The nests are built near the ground in some low bush or cactus, and occasionally on the ground. By the 1st to 10th of May in the Catalina region the first broods of young have left the nest and parent birds, and go about in small flocks of from five to twenty. The amount of black showing on the throats of young male birds varies greatly; in some it is hardly to be distinguished, while in others it is conspicuous, though not as brilliant as in the adult birds. There is every possible gradation between these two extremes; and young females often show traces of the black throat-marking.

The species is very familiar, and being so common, and having a pleasing song, it may fairly be considered as occupying about the same relative position in the Fringillidæ of the region that the familiar *Spizella socialis* does in the East.

[Mr. Scott's series of 58 specimens includes 18 in first plumage. They wholly lack the black of the throat and face, but the white superciliary and maxillary stripes are distinct; the whole dorsal surface is of a lighter, more ashy brown, and the feathers of the interscapular region are obscurely streaked centrally with dusky; throat whitish, often with faint touches or streaks of dusky; whole breast streaked with blackish, more or less heavily in different individuals; in some the streaks being narrow and indistinct, in others broad and heavy. The tail is less intensely black, the white edging of the outer webs and the white spot on the inner web of the outer feathers in the adult are usually wholly wanting; the latter is sometimes present, but much reduced in size.

Adults in the fall have the brown of the dorsal surface deeper than in spring and summer, but there is apparently no sexual difference in color.—J. A. A.]

162. *Amphispiza belli nevadensis*. BELL'S SPARROW.—This species is only mentioned once in my notes as occurring in the Catalina Mountains. This at an altitude of 5000 feet in late September, 1884. Mr. Herbert Brown considers it as not a common bird about Tucson in winter, where he obtained a male, November 2, 1884, and a female, December 28, 1884. I noticed quite a number on the low mesas near the San Pedro, November 22, 1884.

163. *Peucæa carpalis*. RUFOUS-WINGED SPARROW.—In the foothills of the Catalinas this is at times, particularly in late fall and early spring, a common species. During the warmer months, though met with now and then, I cannot consider it as being common, and have been unable to find its nest. In this region, which is the only point where I have met it, it occurs from about 3000 up to 4500 feet, in flocks of from four to twenty individuals, and is not infrequently associated with *S. socialis arizonæ*, having very similar habits.

164. *Peucæa ruficeps boucardi*. —The bird is present in the Catalina region all the year, ranging more or less commonly down as low as 3000 feet in winter, and up into the pine woods during the warmer months. I met with it casually at Mineral Creek, where it was apparently rare. Mr. Brown has no records of it from about Tucson. The song is very pleasing, and the bird is quite tame and familiar, coming to feed on grain and crumbs daily about my house.

This species has been discussed quite fully in former papers of this journal (*Auk*, Vol. II, p. 354, and Vol. III, p. 83), to which the reader is referred for further details.

[Mr. Scott's series of 46 specimens, 40 of them adult, shows that among the latter there is much seasonal variation in color. In autumnal and winter specimens the yellowish brown wash of the lower surface is much stronger than in spring (April) specimens, this color becoming still paler in specimens taken in June. The browish chestnut in fall and winter birds loses later its vinaceous or purplish tinge, becoming deep reddish brown in the breeding season, with the ashy bordering of the feathers more restricted. The bill also becomes darker. It is thus quite easy to recognize approximately the date of collecting, without reference to the label, from an inspection of either the dorsal or ventral surface of the specimen.

The young in first plumage have the feathers of the breast and flanks narrowly streaked with dusky, the streaks being most distinct on the breast. The general color of the lower parts differs little from that of the adult. Above the head, neck, and interscapular region are ashy brown, each feather broadly centered with dusky. The wings and tail are nearly as in the adult.—J. A. A.]

165. *Melospiza fasciata fallax*. DESERT-SONG SPARROW. — The only point where I have observed this species is in the immediate vicinity of Tucson, where it is apparently resident, though most common during the spring months, and where it breeds. Mr. Brown's observations coincide, I believe, with the above statement. I have no definite data in regard to time of nesting, but have heard the birds singing in late January. So

far as I am aware they are not so familiar about houses as the Song Sparrow of the East.

165 *a.* *Melospiza fasciata montana*. MOUNTAIN SONG SPARROW. — This form of Song Sparrow I noticed not uncommonly on the San Pedro River in January (26-29), 1886. I have also seen it in the vicinity of Tucson on two occasions, both in the winter. Mr. Brown has found it to be a rather irregular visitor and generally uncommon about Tucson during the winter.

166. *Melospiza lincolni*. LINCOLN'S SPARROW. — A regular, though not very common, spring and fall migrant in the Catalina Mountains, and a few probably winter in this locality.

167. *Pipilo maculatus megalonyx*. SPURRED TOWHEE. — A common resident in the Catalinas, where it breeds at altitudes above 5000 feet, and ranges, except in the severest portion of the year, to the highest points. Breeds in the vicinity of my house in May and June. Young, fully fledged in the streaked plumage, were taken about the middle of July. (For further reference to this form, see Auk, Vol. II, No. 4, p. 355.)

168. *Pipilo chlorurus*. GREEN-TAILED TOWHEE. — A common spring and fall migrant, and a few winter in the Catalina region. Most abundant in September and April. I met with it at Riverside and at Mineral Creek, and have also seen it about Tucson. I do not think it breeds within the region in question.

169. *Pipilo fuscus mesoleucus*. CAÑON TOWHEE. — A common resident throughout the entire region, and ranges up to the pine forests in the warmer months. The first nests were found in the Catalina region (altitude 3500 feet) about the middle of March, from which time the breeding period extends well into July.

[A young bird in first plumage lacks the chestnut crown-patch; the rump and upper tail-coverts are decidedly rufous, contrasting with the back; the wing-coverts are tipped with yellowish white, forming two narrow wing-bars; the throat, whole breast, and flanks are distinctly streaked with dusky. — J. A. A.]

170. *Pipilo aberti*. ABERT'S TOWHEE. — Occurs as a resident about Tucson and at Florence, which are the only points where I have personally observed it. It is by no means as common as the last, and does not, so far as I am aware, enter the foothills or range up into the mountains. The height of the breeding season about Tucson is in the latter part of May and early June.

171. *Cardinalis cardinalis superbus*. ARIZONA CARDINAL. — This form seems to have a very general distribution throughout the area treated of, ranging up to about 5000 feet in the mountains. It is perhaps most common in the foothills at an altitude of 3500, and is particularly conspicuous, both by its very brilliant plumage and clear, melodious song. This does not seem very different from that of the typical bird save that it has possibly greater volume. In the Catalinas I find them most common in cañons where there is considerable growth of juniper, and the same holds true at the point where I observed them on Mineral Creek.

172. *Pyrrhuloxia sinuata*. TEXAN CARDINAL. — Rare or casual in

the foothills of the Catalinas. I have observed it here on only two occasions. Rather common, especially in early spring, about Tucson. Mr. Brown found it commonly in the Quijitoa country in the winter of 1884 and 1885. I did not observe it at either Florence or at Riverside.

173. *Habia melanocephala*. BLACK-HEADED GROSBEAK. — At Mineral Creek, altitude 5000 feet, this species was breeding in small numbers during the summer of 1882. The only other point where I have met with it is in the Catalina Mountains, where it undoubtedly breeds at the highest altitudes, and where after the first of July it rapidly becomes abundant as low down as 3500 feet. Here I found it in large scattered flocks, during July, August, and September, 1884, feeding on all the small wild fruits and seeds that are abundant at this time of year. Its arrival at this same locality was first noted May 1, and it remains till about the first week in October.

I took a remarkably fine albino of this species on August 15, 1884, in Pepper Sauce Cañon. Catalina Mountains.

174. *Guiraca cærulea*. BLUE GROSBEAK. — The only records I have of this species are kindly furnished me by Mr. Brown, who finds it rather rare about Tucson late in May and early in June.

175. *Passerina amœna*. LAZULI BUNTING. — Observed at Mineral Creek in August, 1882. Took a young male (No. 624) in Pepper Sauce Cañon (4500 feet), July 27, 1884. These are the only records I have made of the species. Mr. Brown has found it breeding, but not common, about Tucson, where it is most frequent during the spring migration.

176. *Spiza americana*. DICKCISSEL. — The only record of this species is furnished by Mr. Herbert Brown, who took a female near Tucson on September 11, 1884, and later kindly showed me the bird in his collection.

177. *Calamospiza melanocorys*. LARK BUNTING. This species, if it does not breed within the area under consideration, is present almost the entire year and sometimes is to be met with in enormous flocks. I find in my notes large flocks noted near Florence, Dec. 10-20, 1883. On the mesa, above Pepper Sauce Cañon, Catalinas (altitude 4000 feet), I saw Aug. 17, 1885, two large flocks, composed of adult and young in about equal numbers, the adult males still in full plumage. A small flock was seen in Old Hat Cañon, Catalinas (4000 feet), on March 10, 1885 — first of the spring migration. A number of large flocks were noted on the plains about Tucson, Feb. 19, 1886.

(To be continued.)

RARE BIRDS OF NORTHEASTERN NEW BRUNSWICK.

BY PHILIP COX, JR.

BEFORE entering upon the subject of this paper, it is well to say something concerning the character and climate of this cor-



Allen, J. A. 1887. "On the Avi-Fauna of Pinal County, with Remarks on Some Birds of Pima and Gila Counties, Arizona (Continued)." *The Auk* 4, 196–205.
<https://doi.org/10.2307/4066905>.

View This Item Online: <https://www.biodiversitylibrary.org/item/54094>

DOI: <https://doi.org/10.2307/4066905>

Permalink: <https://www.biodiversitylibrary.org/partpdf/88497>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Smithsonian

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.