# THE BIRDS OF CUSTER AND DAWSON COUNTIES, MONTANA.[1]

BY E. S. CAMERON, F. Z. S. L., M. B. O. U.

*Plates XV and XVI.*

92. **Phalænoptilus nuttallii.** POOR-WILL.— Common in both counties. Arrives from the middle to the end of May. I have not heard it call after the end of August. Poor-wills begin to fly about at dusk and are seldom seen, but on every ranch "those shadowy birds, consorts of bats and owls, — those scarce-embodied voices of the night," are heard during June and July. The Poor-will would rarely be seen by daylight without a dog to start it from the long grass and sage-brush in which it lies. On May 27, 1894, a collie flushed three together on Ten Mile Creek, Custer County, when two were shot by a 'tenderfoot' which proved to be both females. Each contained an egg which in one was ready to lay. Poor-wills bred upon my ranch near Terry, and in 1898 the young could fly on August 21. They visited the water-troughs at my ranch in Dawson County of an evening, and on June 9, 1906, three alighted on the hitching post about 7.30 P. M. Here two fought while the third looked on, the combatants uttering their cry of poor-will and a peculiar booming or croaking which differs from the noise made by the Nighthawk. Unlike the eggs of the latter, those of the Poor-will are scarcely ever seen; the bird seems to possess an unusual instinct for laying them in out of the way places. On June 26, 1907, Mr. M. M. Archdale flushed a Poor-will from her two white eggs on a steep hill-side in some rough pine brakes at his ranch near Knowlton. In this unfrequented place the eggs were fully exposed on the bare earth amidst the pines. On June 28, we went together to the place intending to photograph the eggs, but they had been already removed by the bird.

93. **Chordeiles virginianus henryi.** WESTERN NIGHTHAWK.— Abundant. Ubiquitous in both counties. Arrives, on an average, in the first week of June, and leaves during the first week of September. By the end of August Nighthawks are very scarce. On June 28, 1903, sixty-nine of these birds passed me flying west at 6:30 P. M., when riding at my ranch in Dawson County. During July, 1905 and 1906, from fifty to sixty might be counted almost any evening from the door at the same place. Their manner of flying was to give twelve rapid wing beats and then sail in circles. Nighthawks lay their two eggs in any open situation in the badlands or on the prairie indifferently. They probably rear two broods

[1] Continued from p. 270. For maps of the region see maps facing p. 244.— *N. B.* On map of Dawson County, for "Scale, 12 miles=1 inch" read Scale, 18 miles=1 inch. On map of Custer County, for "Scale, 12 miles=1 inch." read 19.4 miles=1 inch.

in the year, as I have found both eggs and full-feathered young at the end of July. The male assists in the duties of incubation. Young full-feathered Nighthawks, before they can fly, have chestnut and black upper parts, black primaries with narrow buff margins, and are pale buff beneath. The mother gives a call of *cheep cheep* when she thinks her nestlings are menaced and performs extraordinary antics.

94. **Aëronautes melanoleucus.** WHITE-THROATED SWIFT.— Rare. Transient. Mr. Dan Bowman has observed this bird on the Powder River, Custer County. I have not seen it.

95. **Trochilus colubris.** RUBY-THROATED HUMMINGBIRD.— Rare. Mr. Dan Bowman has described Hummingbirds to me observed by him at different times in Custer County, which undoubtedly belonged to this species. He thinks that in the summer of 1888, a pair nested on his ranch by the Powder River, as they were seen about the garden for six weeks attracted by the petunias, four o'clocks, and marigolds which grew there. Miss Mildred Myers recollects that about seven years ago a pair of Ruby-throated Hummingbirds nested in a clump of rose bushes at Miles City, where the residence of Senator McLean is now situated. She frequently saw the nest, which contained two pearly white eggs about the size of peas.

96. **Stellula calliope.** CALLIOPE HUMMINGBIRD.— Rare. Mr. Dan Bowman informs me that a male of this species was several times seen by him and his wife, to hover over a bed of flowering sweet peas at Knowlton, Custer County, in September, 1899.

Mr. F. Z. Gray states that some years ago a pair of Calliope Hummingbirds nested at the Mason ranch, situated between the heads of Sheep and Trail Creeks, being attracted by the numerous flowers in Mrs. Mason's garden.

97. **Tyrannus tyrannus.** KINGBIRD.— Common in both counties on the river valleys. Scarce in the pine hills excepting on the spring migration when small flocks may be seen. Kingbirds arrive about the middle of May, but, as with Say's Phœbe, the time of arrival is irregular. They were more common on my ranch near Terry, Custer County, than I have noticed them elsewhere, and are late breeders, the newly fledged young first appearing at the end of July. Kingbirds nest in the wild fruit trees, box elders and young cottonwoods, generally at a low altitude. In 1900, a pair of Kingbirds built their nest in a box elder tree close to that of the Marsh Hawk on the ground, and by their persecution distracted her attention from any intruder. In this they did me good service, by preventing her from stooping at my head, but they harried the poor hawk to such an unmerciful degree that it was a complete mystery how she could endure such attacks patiently. However, the Kingbirds were none the worse. The passiveness with which large hawks will submit to aggressive Kingbirds has always astonished me, and it must be assumed that their feelings alone are hurt by the persecution. The Kingbird alights on the back of Swainson's Hawk, remains there pecking at it for a couple of seconds, and, no matter how high the hawk may soar, the small aggressor will keep above

it renewing the attacks at intervals until both are lost to view. The hawk responds to each assault by merely giving sluggish downward flaps when it again soars on motionless wings as before.

98. **Tyrannus verticalis.** ARKANSAS KINGBIRD.— Abundant summer visitor. Ubiquitous in both counties; nesting in all kinds of trees, at any elevation indifferently. Arrives about the middle of May, young are generally fledged about the middle of July, and by Sept. 20, all the birds have left. Arkansas Kingbirds lay from three to five eggs and, like the next species, occasionally steal the nests of other birds. One pair drove away two robins and took possession of their nest. On July 8, 1893, I made the unusual discovery of these Kingbirds nesting in a colony on a fork of Whitney Creek, Custer County. The nests were placed in the forks of young cottonwoods, some contained eggs and others young birds nearly ready to fly. The male indulges in a curious display when courting the female. He makes successive darts in the air, fluttering, vibrating his quills, and trilling as he shoots forward. Propelling himself thus for several hundred yards, he looks like a bird gone mad. This species shows equal courage in attacking the Raptores as the last mentioned. On July 12, 1904, as my wife and I were driving through cottonwoods on the Yellowstone, a young Sparrow Hawk rose from the ground which was immediately struck down by an Arkansas Kingbird before it could clear the trees. I picked up the dazed hawk and took it home when next day it was sufficiently recovered to fly about half a mile before alighting. This showed that the hawk had not fallen from weakness, but from the force of the onslaught.

On July 1, 1905, we watched an Arkansas Kingbird attack a female Red-tailed Hawk which was disturbed from her nest in a cottonwood. The Kingbird constantly alighted upon this powerful hawk, once upon her head, and pecked her repeatedly, while the latter made no attempt to retaliate, but merely flew in circles uttering her quavering scream.

99. **Sayornis saya.** SAY'S PHŒBE.— Common summer visitor. Arrives at any time between April 5 and April 30. This bird, like Cliff Swallows, adopts the two extremes of nesting about buildings and in remote badland solitudes. Unlike the latter it shows small discernment in the choice of a site, the nests are placed on or against logs under low eaves, or on any convenient ledge, where the young must inevitably fall victims to ranch cats. If for any cause compelled to desert the first nest, Say's Phœbe will build a second in another similar situation. Five eggs are laid. A pair of these flycatchers made a peculiar unattached nest on a slanting board at the back of my house in Dawson County, and ingeniously built up the lower end to make the inside level. As usual this nest was at such a low elevation as to be at the mercy of any predatory animal. While these birds excel as architects and make substantial nests of grasses and fine roots lined with such material as wool and feathers, they are not above appropriating the nests of other species. In this latter case they can rear a brood safely. In May, 1895, a pair took possession of a Barn

Swallow's nest in the stable and forced the rightful owners, which were renovating it, to build an entirely new one affixed to a beam. In 1904, a pair of Say's Phœbes nested below the eyrie of the Golden Eagles and were unmolested. Another pair which, in 1906, built in a hole near the Prairie Falcon's eyrie (on one of the highest buttes along the Yellowstone) were killed by the latter for their young. In May, 1907, a still more remarkable site chosen by these flycatchers was the old abode of a Cliff Swallow; one of several nests situated above a wolf-den in a huge sand rock. The den was inhabited by a she-wolf with her six pups, and the birds were exposed to constant disturbance, both from these animals and from men who suffocated the young wolves with a pitch pine fire. The she-wolf escaped with one ten weeks-old pup and intermittent efforts were made to trap her at the den. Nevertheless the flycatchers did not desert their nest.

100. **Contopus richardsonii.** WESTERN WOOD PEWEE.— Rare. My wife has twice seen a single bird which came to our water-troughs in Dawson County, on March 21 and April 6, respectively, 1904. A pair was seen by me near Knowlton, Custer Co., on May 10, 1907. Captain Thorne gives this species as "Common. Breeds."

101. **Empidonax trailli.** TRAILL'S FLYCATCHER.— Rare. I observed a specimen in the shrubbery at my north window (Custer County), on May 18, 1894, and another remained there from May 11 to May 19, in 1896. Captain Thorne took one specimen on June 8.

102. **Empidonax minimus.** LEAST FLYCATCHER.— Rare. I saw an example of this flycatcher in the brush at my north window (Custer County) on May 25, 1893, and another on May 18, 1894. Captain Thorne gives it as "Not common."

103. **Empidonax hammondi.** HAMMOND'S FLYCATCHER.— Rare. I have not observed this bird. Captain Thorne obtained "two specimens — an adult July 17, and a young bird June 8."

104. **Otocoris alpestris arenicola.** DESERT HORNED LARK.— An abundant resident; ubiquitous in both counties. Immense flocks, which may number five hundred birds, reinforce the residents at the end of February. Of all prairie birds Horned Larks are the first to breed. I have seen their grass nests in depressions of the plain as early as the latter part of April; also at the end of June, showing that two broods are reared. Later nests are often lined with down from the pollen of a small daisy common on the prairie. Four eggs are laid and as was pointed out by Coues in 'Birds of the Northwest' (1874), both sexes share the duties of incubation. Newly fledged young run in the road ruts like their parents, and are sometimes trodden on by horses before they can fly. At this age they are sprinkled all over with white dots above and may be easily recognized. When her fledglings seem in danger the mother flies to, and runs from them, alternately, to induce them to follow her away. In winter Horned Larks frequent ranch buildings in search of food which they find in the hay stacks or in the droppings of cattle and horses. At this time cold and starvation render them so tame that they can be easily caught. (See Chipping Sparrow, No. 143.)

In the fall of 1889, Captain Thorne "sent one hundred and eighteen skins of birds taken every month in the year, to the American Museum of Natural History, New York. They were examined by Dr. Jonathan Dwight, Jr., and pronounced to be "all *arenicola.*"

105. **Pica pica hudsonica.** AMERICAN MAGPIE.— Common. More numerous in Dawson County than in Custer. Abundant in Custer County during the early nineties, where it was a source of much annoyance to trappers until exterminated by poison and traps put out for wolves. Increasing again now, in Custer County, during the last five years, especially around Knowlton, from a single pair which is believed to have come from Dawson County to Mr. J. H. Price's ranch. They nested at the latter place in 1902, and on February, 21, 1907, I counted eighteen Magpies in one of Mr. Price's pastures. Two pairs of Magpies nest annually on Cottonwood Creek which runs through the badlands near my ranch in Dawson County. There are altogether seven nests here, but three only have been used in the last four years. The broods number six or eight, and can fly by the middle of June. The full-feathered fledglings sit in the tree and have a habit of incessantly bobbing, or bowing, which renders them difficult subjects for the photographer. When the young birds think that the parents are away too long they keep up a monotonous clamor upon one note, precisely like the young Piñon Jay's shriek. Magpies perch on cattle for the 'warbles' which infest the hide, and also alight on the backs of horses and of the mule deer. The latter do not seem to appreciate this attention, and I have seen a doe push a Magpie from her back with her nose. I have found the Magpie to be one of the tamest birds in eastern Montana. On August 4, 1904, I approached within four yards of one sitting on a bush of the so-called yellow sage in the badlands. If encouraged about ranch buildings there is no limit to the boldness of this precocious thief.

106. **Corvus corax sinuatus.** AMERICAN RAVEN.— Rare. An occasional straggler to both counties. I have seen about half a dozen in 18 years. Mr. J. H. Price has not observed it. When on a hunting trip in 1898 a pair were twice seen; on Nov. 21 (on Cherry Creek) and Dec. 19 (on Cedar Creek) in Dawson County. At the latter date I had made a long and fatiguing crawl towards some recumbent antelope in high sagebrush when the low flying Ravens spoilt my stalk by frightening the timid game. Captain Thorne gives the Raven as "not common" but Dr. Edgar A. Mearns records it as "common" in his list of birds of Fort Custer. (Condor, Vol. VI, p. 21.)

107. **Corvus cryptoleucus.** WHITE-NECKED RAVEN.— Rare. One seen by my wife and Mrs. Gifford at the Gifford residence, Fallon, Custer County, on Sept. 14, 1902. It was flying south within range of a 16-bore gun.

108. **Corvus americanus.** AMERICAN CROW.— Not common. An irregular spring migrant in both counties. I saw a large flock on April 29, 1894, at my ranch in Custer County, but it is generally seen in small numbers.

In April, 1904 (as Mr. J. H. Price informs me), J. Anderson of Sheep Creek (Custer County) had much trouble in corralling his horses owing to a large flock of crows which alarmed the animals by cawing in the pines. Mr. F. Z. Gray saw a flock of forty crows at Knowlton on March 31, 1907. As far as I can learn the crow has not nested in either county since 1885, but old nests may still be seen (April, 1907). Fifteen, which are in Mr. Dan Bowman's pasture on Sheep Creek, are situated in ash trees about fifteen feet from the ground.

109. **Cyanocephalus cyanocephalus.** PIÑON JAY.—Common in the pine hills of both counties. Occurs sporadically in roving flocks of from fifty to a hundred individuals in fall, but at least one resident flock inhabits the tract of rough country, some four by eight miles in extent, which is drained by Cottonwood Creek in Dawson County. (See Auk, Vol. XXIV, Plate VII.) This is an area of pine hills and badlands combined, practically impassable on horseback, and contains in its secure recesses not only the eyrie of the Golden Eagles, but, where bounded on the south by the Yellowstone, one of Prairie Falcons as well.

Here, where the buttes rise sheer from the water's edge, the Piñon Jays may be seen on the high peaks, either walking about the cliff or flying slowly along its precipitous face, when they strongly recall the Jackdaws of Great Britain. The same flock constantly frequent my ranch and drink regularly at the water-troughs, where their blue plumage against the green cedar background has a fine effect in bright sunshine.

When actually in the trees, Piñon Jays are hard to see on account of the thick branches, but being restless birds they constantly pass and repass through the scattered pines in straggling flight. Although their ordinary pace is slow, they can, when they like, fly very swiftly. Their presence is always proclaimed by their shrill cry of *wī-ār whăck, wī-ār whăck*; the last note short, but the first two notes long and high pitched like the caterwaul of a cat. Should a flock be disturbed when feeding in the pines, the first bird taking wing will warn the others by this cry, when they will follow leisurely, one at a time, until all are in flight and calling, the last to leave, however, being a long way behind the first. When flying to water they act in much the same manner. Piñon Jays have also a single call, like the cry of the young but harsher, and (as pointed out by Mr. Ridgway)[1] another "peculiar querulous note" like that of the Magpie in the love season.

That the cry of the young birds, both in and out of the nest, is precisely similar to that of young magpies, I can assert from my own experience, having been able to compare both at the same time. Although at the time of writing (April, 1907) only two nests of the Piñon Jay have been discovered, it is evident that many pairs must breed here, for I have seen and watched numbers of the newly fledged young which could only just

[1] North American Birds, by Baird, Brewer and Ridgway, Land Birds, Vol. II, p. 261, 1874.

FIG. 1. THE LAST PIÑON JAY FLEDGLING IN NEST.

FIG. 2. NESTING SITE OF SAY'S PHŒBE ABOVE A WOLF DEN.

fly across the gulches. The two nests mentioned were about four miles apart, and so far, I have found no evidence of the birds breeding in colonies here, as in the mountains, but judging from the size of the flocks it would appear that they undoubtedly do so. The paucity of nests met with is readily explained by the impenetrable nature of the country to be explored.

One of the above mentioned nests was only two miles from my ranch so that I was able to keep the birds under observation. The pair were first noticed to be carrying twigs on May 19, at which date the nest was about half-finished, both birds assisting in its construction. Without the guidance of the birds it is unlikely that I should have found the nest at all, placed, as it was, near the extremity of a thick pine bough and completely screened from observation except from above within the tree. The nest was of large size with a smaller interior cup, the whole of the exterior, together with a platform on which the cup rested, being composed entirely of dead greasewood sticks and a few rootlets. The width across the sticks was 14 inches, and the height of the nest 8 inches. The cup was very strongly made of dead grass, pulled by the birds into a material like tow, and so thickly matted together, that it remained intact when nearly all the surrounding sticks had been blown away. Some dead thistle leaves were woven into the rim. The inner cup was 5½ inches in diameter and 2½ inches deep. Although no clay was used in its manufacture the cup at first resembled the white clay lining of some nests and thus afforded charming contrast to the eggs in their bower of pine needles. By the time that the young were hatched the cup had turned from white to brown. The female began to lay apparently on May 24, as she was sitting on five eggs on May 28. To the best of my belief, both birds share the duties of incubation. The ground color of the eggs is pale greenish, spotted, streaked, and clouded with reddish brown and purple. As seen in the nest they are indistinguishable from handsome eggs of the Blackbird (*Turdus merula*). The naked slate-colored young were hatched on June 15, so that the time of incubation was about 18 days. They are fully feathered at two weeks old, being then a uniform lavender of exactly the same color as the flower of that name, with bill, legs, and feet to match. This hue is darkest on the quills and lightest on the crissum. After leaving the nest they became more ash gray, lighter below; the tail is then dark slate with a light tip, and the ends of the primaries almost black. Until after the fall moult the birds show no real blue. The irides are hazel. The adult female is a pale lavender blue, with the head blue; the male is a darker, more uniform blue. As pointed out by Coues[1] this blue is "very variable in intensity."

I regret to record that these interesting, but unfortunate, nestlings were hatched only to meet with a cruel fate, for on the very day after emerging from the shell (on June 16), they began to disappear at intervals, one after another, in a most perplexing manner. At first I attributed their loss to the violent gales which swept over the country, uprooting many pines,

[1] Key to North American Birds, p. 418, 1887.

but, on July 2, when only one full-fledged bird remained out of the five, I recognized the work of some other destructive and more mysterious agency. As there was no trace of the nestlings on the ground near the tree, and the nest was invisible from the outside, it was my belief that winged marauders, such as Marsh Hawks, must be responsible, although none of their kind had been seen near this badland grove. Certainly there were Sparrow Hawks, but the massacre of these innocents seemed alien to their habits when grasshoppers swarmed, as at the time in question. Wishing to save the last Jay fledgling and, if possible, solve the mystery, I sat down to watch with my field glasses on a deer trail where it wound near the summit of a steep distant butte. After a long wait my patience was rewarded by seeing a pair of Northern Shrikes fly straight to the Jays' tree. On this occasion the parents were at hand, and, assailing the miscreants with sharp cries, compelled them to retreat. I held the key, however, to this tragedy of the badlands, and I felt convinced that the sole survivor would untimately follow its brothers and sisters.

Piñon Jays subsist chiefly on pine seeds, which they extract from the cones, and also on the soft embryonic cones themselves, detaching these with their tapering bills from the tasselled parent stem. Like Magpies, however, they are practically omnivorous, and a Piñon Jay has been known to meet its fate in a wolf trap by which destructive instrument so many of the former have perished. Like Magpies, too, Piñon Jays come about the ranch house in the hope of receiving scraps from the table, alighting but two or three yards from the door, or on the hitching post where the horses are tied. They are also very fond of insect food, and may be seen walking about as they turn over dried cattle manure is search of coleoptera. Mr. Dan Bowman informs me that in his locality (Knowlton) soft corn on the cob has a great attraction for them.

It is an interesting sight in June, to watch a flock of some hundred or more Piñon Jays which contains a large proportion of the newly fledged young. After the latter can fly well they still expect the parents to feed them, and clamor incessantly to be fed, repeating their shrill monotonous cry of *wauck* on a single note, whether on the ground or in the pine branches, voracious, open-mouthed fledglings walk towards the parents, flapping their newly acquired wings to attract attention. The old birds may then be seen supplying them with grubs and insects. I observed one female feed a single offspring on the ground several times in a few minutes. In midwinter, Piñon Jays seek deep ravines and love to sun themselves either on a bank or in the branches of low cedars which grow there. When thus sheltered these noisy, restless birds will sit motionless for some time without calling to each other. At this season their food seems to consist entirely of cedar berries.

110. **Molothrus ater.** COWBIRD.— Abundant summer resident of both counties, arriving in April. The manner in which Cowbirds associate with horses and cattle is no less interesting than remarkable. I have often noticed at my ranch (Custer Co.), when a saddle horse was turned loose,

how numbers of previously unseen Cowbirds would suddenly appear from space to perch upon him and run up and down on his back. Horses are corralled here which are covered with Cowbird excrement, and on June 3, 1894, I drove up my saddle horses with seven Cowbirds perched on the back of one of them. My neighbor, Mr. H. H. Tusler, has caught Cowbirds on horses with his hands.

In summer, when a bunch of cattle is driven to some outlying pasturage, Cowbirds often follow the drove for the whole distance, alighting constantly upon, or just in front of the animals. Many times it seems as if the birds cannot avoid being trodden on, but they just manage to run out of the way in time. Occasionally, the Cowbirds leave the cattle to dart after flying locusts which they catch very cleverly with their bills.

It would seem that Cowbirds sometimes attach themselves to particular cattle, follow them wherever they wander, and drink when they go to water. I noticed young Cowbirds, in August, 1905, which were inseparable from certain cattle of mine for at least a week. Two of these birds were quite buff in color with dusky streaks and easily distinguished.

I have found Cowbird eggs in the nests of the Long-tailed Chat, Brewer's Blackbird, Arctic Towhee, Vesper Sparrow, and Chipping Sparrow. I have seen them more frequently in the nests of the latter than of other species. Three Cowbird eggs are the most I have observed in any one nest. On July 25, 1896, I saw the empty, deserted nest of a Chipping Sparrow in a sage bush a foot from the ground. Underneath lay an egg of the sparrow and one of a Cowbird. For an exhaustive account of the parasitic nesting habits of the Cowbird in this region see Coues's 'Birds of the Northwest,' p. 181 *et seq.*, 1874.

111. **Xanthocephalus xanthocephalus.** YELLOW-HEADED BLACKBIRD. — Tolerably common on migration, but the least numerous of the blackbirds which come here. Yellow-headed Blackbirds arrive about the first week in May and have disappeared by the end of September. They are also seen in the pine hills. Flocks which frequented the haymeadow, haystacks, and corrals in the fall at my ranch in Custer County consisted chiefly of immature birds. While the adult male presents such a splendid appearance, the immature young also show striking variations of plumage. One of these shot among other species of blackbirds in the corn on August 19, 1898, was colored as follows: The throat from the base of the bill was bright yellow, which extended to the breast, this color being divided from the chestnut sides of the head by a coal black patch under and including the eye. The crown, hind neck, and all other parts were black except some yellow feathers at the vent. The irides were hazel and the bird was ten inches long. Yellow-headed Blackbirds nest at several localities in Custer County. On June 17, 1905, my wife found these birds numerous at Brackett's ranch on Whitney Creek, and was told that they were nesting in the vicinity.

112. **Agelaius phœniceus arctolegus.**[1] RED-WINGED BLACKBIRD.—

[1] See Oberholser, Auk, Vol. XXIV, p. 332.

Common on migration in both counties, arriving about the end of April, but more scarce in the breeding season as there are few suitable nesting sites. Large flocks visited my ranch (Custer Co.) in 1893, which were very destructive to the squaw corn, and destroyed all the corn (in the milk) belonging to a neighbor (Mr. H. Tusler) who was forced to cut it for fodder. These flocks seemed almost entirely composed of females and young birds, and seven which I examined were all immature examples. There was a small proportion of Brewer's Blackbirds and Bronzed Grackles among them. The Red-winged Blackbirds were never so numerous at any subsequent period while I lived on this ranch, owing to the fact that in the same year (1893), a pair of Marsh Hawks established themselves below the house and returned each succeeding spring. Both parents hunted incessantly to supply their young with food; together, or separately, they would beat the hillsides flying up and down the creek on which the two ranches were situated. This kept the blackbirds constantly on the move.

Like Brewer's Blackbird the Red-winged chooses all kinds of positions for its nest, and will sometimes place the latter as near the ground as the coarse slough grass will permit. A pool by the Yellowstone, about two miles east of Terry, used to be frequented by a colony of these blackbirds whose nests, interwoven with four or five growing flags and suspended two feet above the water were a pleasure to behold. On June 11, 1894, both fresh eggs and young birds were found; four eggs being the greatest number laid in one nest. Another nest observed on my ranch (Custer Co.), at the same time, and placed a few inches from the ground in a wild currant bush, was most inferior to the above charming style of bird architecture. On this ranch several pairs of Red-winged Blackbirds bred every year in a wet meadow, but reared very few young on account of the Marsh Hawks. On June 8, 1900, there were six nests; five in slough grass, which was here preferred to bulrushes, and one in a wild rose bush. The deep nests were made chiefly of the coarse marsh grass, which is called 'slough grass' here, and contained either four or five eggs. Unlike Brewer's Blackbird, the male of this species becomes most aggressive when the young are full fledged, and will strike an intruder on the head, constantly uttering a loud clucking. The newly fledged young hide in the slough grass and whistle softly. The Red-winged Blackbird has a short, charming song of five notes, in liquid quality of tone more nearly resembling a flute than that of any bird I know.

113. **Sturnella magna neglecta.** WESTERN MEADOWLARK.— Abundant summer resident. Ubiquitous in both counties.

From records kept over a period of eighteen years the average date of spring arrival is shown to be March 30, and of the fall departure October 20. The earliest appearance was March 20, 1907. The Meadowlark is always eagerly awaited here as the herald of spring, and, in the first week of April, pours forth its loud song from every conceivable situation. This has several different passages, but the usual song, which delights ranchmen, consists of a repetition of seven notes — the first long and the other

six short (two triplets). The birds' varied motives could be very easily rendered by musical notation, which I presume has already been done. Meadowlarks also sing on the wing, during rain and snowstorms and at night. I have seen three rival males singing against each other on the ground. Of the Western Meadowlark's song Dr. J. A. Allen[1] has written: "It differs from that of the Meadowlark in the Eastern States in the notes being louder and wilder, and at the same time more liquid, mellower, and far sweeter. They have a pensiveness and a general character remarkably in harmony with the half-dreary wildness of the primitive prairie, as though the bird had received from its surroundings their peculiar impress; while if less loud their songs would hardly reach their mates above the strong winds that almost constantly sweep over the prairies in the hot months."

Meadowlarks make their nests entirely of grass under the sage-brush or in tussocks of grass, and roof them over with the same material. They have either five, six, or seven eggs, beginning to lay about May 20, and sometimes rear two broods. On June 30, 1906, I noticed a bird sitting in a flowering cactus patch which was the prettiest nest I have seen. By the middle of June the young Meadowlarks can fly. In these the yellow is quite pale, but there is not much difference between the adult male and female save that the yellow at edge of wing is paler in the latter. Early in September the Meadowlarks collect in flocks on the open prairie when I have counted as many as fifty together. At my ranch in Dawson County, Meadowlarks are very fond of bathing in the overflow of the troughs with the other birds, and become the wettest of any. Several times individuals were observed which could scarcely take wing, and on August 14, 1904, my wife saw a Meadowlark incapable of flight after its bath.

Meadowlarks have many enemies, more especially Golden Eagles, Prairie Falcons, Marsh Hawks, and Red-tailed Hawks. A pair of the latter, which nested for several years, close to my ranch in Custer County, fed their young almost entirely upon these birds. Whereas heaps of Meadowlark feathers lay on a log near the tree, other remains were scarcely ever found, although the hawks did occasionally procure snakes and cotton-tail rabbits.

Numerous Meadowlarks reared their young in the vicinity of the buzzards' haunt, and this fact, conjoined to the unmistakable evidence that the Meadowlarks formed the staple bill of fare, had probably something to do with the site chosen for the nest.

On June 15, 1898, I surprised the female hawk just after she had seized a newly flown Meadowlark which was immediately dropped. Mr. M. M. Archdale has seen a female Marsh Hawk standing by a Meadowlark's nest and devouring the young birds. I have several times found Meadowlarks impaled, or hanging, on a barbed wire fence, and a few perish from the buffeting of spring storms. Mr. Dan Bowman took one of these storm-tossed birds into his house where it soon recovered, and, becoming ex-

[1] As quoted by Dr. Coues in 'Birds of the Northwest,' p. 191, 1874.

tremely tame, would fly after him wherever he went out of doors. It seemed likely to remain during the winter, but the migratory impulse was too strong and the Meadowlark left at the end of October. Nevertheless, like Brewer's Blackbird, the Meadowlark does sometimes stay for the whole winter. During the last winter, 1906–1907, no less than seven Meadowlarks remained on Mr. Al. Jordan's property situated on the outskirts of Miles City.

114. **Icterus bullocki.** BULLOCK'S ORIOLE.— Common summer resident of both counties on all the wooded rivers and creeks flowing through prairie country. Migrant stragglers occur in the pine hills, but I have not found Orioles nesting within this area. According to my notes, Orioles arrive about May 20, and have eggs by the middle of June. Females appear to arrive first. At my ranch in Custer County, where they nested, the Orioles used to make a loud chattering at 4 A. M., which might be continued until 6, during the end of May. On the Yellowstone their nests are suspended at a great height, often from upright branches, at the top of immense cottonwoods. They are usually made of horse hair, copiously lined with cotton down from the trees, and four or five eggs are laid. In marked contrast to the above, the nests on small, tributary creeks are only a few feet from the ground. Two nests may be found in one small cottonwood here, but Dr. C. Hart Merriam [1] quotes Captain Bendire who saw "as many as five occupied nests on a single small birch tree" at Fort Lapwai in Idaho.

115. **Scolecophagus carolinus.** RUSTY BLACKBIRD.— Rare. On April 26, 1903, I surprised a Sharp-shinned Hawk, which had just killed, and had commenced to eat, a Rusty Blackbird on my ranch in Dawson County. I took this specimen home, which was the only one I had seen hitherto. Later in the day my wife saw a small flock of seven or eight Rusty Blackbirds in the same locality.

116. **Scolecophagus cyanocephalus.** BREWER'S BLACKBIRD.— Abundant summer resident in both counties, arriving in April. In the fall immense flocks, which are largely composed of females and young, occur in prairie country, river valleys, and in the open parks amidst the pine hills. This is one of the tamest birds on ranches, even alighting on the veranda. Occasionally single individuals remain for the whole winter about the buildings. Brewer's Blackbird usually nests in small colonies, either in cottonwood trees or bullberry bushes fringing the creek banks, but also in single pairs upon the ground. In the latter situation the nest is placed under the sage-brush, or any small bush. A colony in bullberry bushes, growing by water, at a fork of Coal Creek (Custer Co.), had nests in every stage of progress, on June 28, 1905. Some were only just finished, while others contained nestlings; a few again held both eggs and young. Further on, newly fledged blackbirds were seen which presumably belonged to a first brood. These are of a uniform umber brown with bill, legs, and

[1] Results of a Biological Reconnoissance of south-central Idaho, p. 101, 1891.

irides dark brown. Brewer's Blackbird lays from five to seven eggs here, and, as, when building in trees, the vertical height of the bulky nest greatly exceeds the diameter, there is only just space for the latter number of eggs. The nests are made of grasses and stalks lined with mud. A flock of about a thousand blackbirds, entirely composed of this species, remained with Messrs. Undem's sheep on Bad Route Creek, Dawson County, during September, 1906. At daybreak, as the sheep gradually rose on their bed-ground, the dusky host swarmed over their backs to search for the ticks which infested them. Messrs. Undem informed me that both the Yellow-headed and Red-winged species sought their woolly charges for the same purpose, but in less numbers. This was the largest gathering of blackbirds that I had ever seen. The latest date on which I have observed them here was October 6, 1898, when a flock was washing in water partly frozen over.

117. **Quiscalus quiscula æneus.** BRONZED GRACKLE.— Common summer resident of both counties, in prairie country, arriving about the end of April. Casual in pines and badlands. This is a very tame, unsuspicious bird, alighting on the veranda, and being easily caught unhurt, if traps are set for it. In the two years 1895 and 1896, the date of the first arrival at my ranch (Custer Co.) was April 25. In both instances an adult male flew into the stable where it was caught, and examined, before being liberated. In these early arrivals, the upper back only was bronze, the head and neck green and blue, while the other parts, including the tail, were black. When alarmed, the birds spread their tails like a fan. An average male grackle measures a foot long, seventeen inches in extent, and weighs four ounces.

These birds nest here in the holes, or hollows, of dead trees, so that their nests are generally invisible from the outside. However, on June 1, 1893, Mr. H. Tusler showed me a nest of this species placed in a hollow formed by the fork of the two main branches of a box elder. Although well protected on all sides by wood, it was possible to examine this nest, which was only six feet from the ground, and made entirely of slough grass, with a thick, internal layer of mud. It contained six lovely eggs; a water color drawing alone does them justice.[1]

In 1894, there was a small colony of grackles in the large cottonwoods on the south bank of Yellowstone, below the Terry ferry crossing. All the nesting holes were high and very difficult to reach, excepting one where the nest was in the top of a burnt cottonwood stump, about twelve feet from the ground. The birds had eggs on June 3, and young hatched out on June 11, which both parents were feeding on crane flies. The greatest number of eggs in one clutch appears to be six, and by the middle of July the young grackles are flying about with the old birds.

118. **Coccothraustes vespertinus montanus.** WESTERN EVENING GROSBEAK.— Appears to be a rare straggler. On June 6, 1900, a male of this

[1] A lady friend, an expert water color artist, painted two of these eggs for me.

species perched in the choke cherries at the ranch veranda in Custer County, where it sung loudly for some time. This song, which I thought was very fine, attracted me to the bird. My wife also heard it in the dark room, and afterwards told me it had reminded her of a Thrasher. Nevertheless, Mr. Townsend[1] has described it as "a miserable failure." So much for different opinions.

On August 23, 1904, a male Evening Grosbeak came to my water troughs in Dawson County and allowed a near approach. Captain Thorne gives it as rare. Dr. Edgar A. Mearns[2] mentions that "a small flock was seen beside the Bighorn River, near Fort Custer" (which was formerly in Custer County) at the end of July.

119. **Loxia curvirostra minor**. AMERICAN CROSSBILL.— Common in the pine hills of both counties. Crossbills may be seen during every month of the year and it is certain that they breed, although I have not found a nest.

It was not possible for me to give much attention to these birds until the three years 1904, 1905, 1906, when Crossbills of all ages and plumages were regular visitors to my water-troughs in Dawson County. During the first two years above mentioned, the birds came daily, in small flocks from the end of May until the middle of December, and when mixed with about the same number of Goldfinches, presented a most attractive sight. In cold weather, the Crossbills showed their intelligence by waiting for me to break the ice, singing subdued songs meanwhile, but ceased coming altogether after snowfall. From six to twenty was the average number of Crossbills seen daily at the water, but on June 6, 1905, I counted forty-eight in two flocks, which was the most ever observed here. As is well known, these birds are very tame, and will sometimes allow an examination within two or three yards. The most striking feature about these Crossbills is the variation in their plumage. Besides the vermilion and black of the adult males (which colors are seemingly brightest in November), and the grays or greens of females and young, I have seen the following mixed plumages: Vermilion and brown; orange and brown; olive green, with underparts and rump light green; also, a tricolor of brown, green and yellow. The rarest combination of colors remarked by me is a uniform bright green with yellow on the wings. In 1906, Crossbills were comparatively scarce, but young of the year began coming to the water on June 15.

120. **Leucosticte tephrocotis**. GRAY-CROWNED LEUCOSTICTE.— Abundant winter visitor.

The average date of arrival in the vicinity of Terry is October 25, and the birds leave about March 15. This species occurs in immense flocks in both counties, but appears to be very local and capricious. I have never seen it south of the Northern Pacific Railroad. My first experience of this

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[1] North American Birds, Baird, Brewer and Ridgway, Land Birds, Vol. I, p. 451, 1874.

[2] Condor Vol. VI, No. 1, p. 21.

bird was during the early days of February, 1893, when staying at the Macqueen Hotel in Miles City. I then observed a large flock for some days through the window; the birds remained in the cottonwood trees outside, and appeared paralyzed from cold and starvation. The weather was then terribly severe; forty-two degrees below zero had been registered on the first and second of the month. On the third instant, one of these finches, almost frozen to death, ventured into the hotel, through the front door (momentarily opened) and was captured alive. I endeavored to restore it, but the bird was too far gone, and shortly expired. When hunting mule deer in the Terry badlands (in Custer County), or in the red scoriaceous hills beyond (in Dawson County), large flocks of these birds add charm to the wintry landscape, as they balance on the tall rye grass, or whirl past in erratic curves.

Sometimes the flocks complete circles in the air, when they look like a variegated wheel of birds, or fly untiringly about the cedar thickets after the manner of Bohemian Waxwings. During snowy weather they allow an approach to within four or five yards when engrossed with grass seeds and withered dog daisies on the bare patches of the hillsides. If forced to rise, they sweep round in a dense cluster, and immediately return to the same spot — their wings making a loud, rustling noise.

Rosy Finches are very numerous at my ranch in Dawson County; I have seen about a thousand at one time by the water trough distributed in the pines and on the ground. A long stream of birds may keep flying into a draw for about a minute and be all lost to sight in the long grass upon alighting, but the same flock perched in a small dead cedar (completely covering it), is a remarkable and charming sight. The winter of 1905-06 was a great contrast to previous years, as for some inexplicable reason, no Rosy Finches appeared.

Writing of this species at Fort Keough, Captain Thorne states: "When it is cold and stormy they gather into the post by thousands. . . . They are often seen sheltering themselves in the old nests of Cliff Swallows."

121. **Leucosticte tephrocotis littoralis.** HEPBURN'S LEUCOSTICTE.— Common. I agree with Captain Thorne that this species occurs "with the last in about the proportion of one in twenty." On November 13, 1903, at my ranch in Dawson County, three remarkably tame birds came alone to the water-troughs.

122. **Acanthis hornemannii exilipes.** HOARY REDPOLL.— Rare. A Hoary Redpoll was observed by me at my ranch in Dawson County on March 9, 1905.[1] It was very tame, and in a flock of common Redpolls would have looked like a white bird.

Dr. Louis B. Bishop has a note in the Auk (Vol. XVIII, p. 195) of two Hoary Redpolls collected by Mr. C. F. Hedges, at Miles City, on February 26 and March 12, 1900.

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[1] See Auk, Vol. XXII, p. 313.

123. **Acanthis linaria.** REDPOLL.— Common. An erratic winter migrant in both counties. Sometimes appearing in hundreds. Roving flocks of Redpolls may be seen at all times and in all places from October until the end of April. I saw numbers of Redpolls in the town of Miles City January 3, 1905, when the temperature was twenty below zero. In November, any flock of small birds, seen flying, will almost certainly be Redpolls. During the whole of this month, restless flocks flit through the pine hills, alighting on the ground to feed on sage-brush, and the ubiquitous weed which, a month earlier, is sought eagerly by Tree Sparrows. While thus scattered over the hillsides, a large flock seems to contain only about twenty birds, as so few are in sight, and these are perched on the sage tops, or on the withered heads of the aforesaid pink daisies. If the birds become alarmed, they fly to the skeleton branch of some dead cedar, when the reunited flock is shown to be ten times the number supposed. I have noticed that in these flocks the adult males, with carmine breasts, are in proportion of about six per cent. to the females and young of the year.

In midwinter, when deep snow covers the ground, large flocks of Redpolls may be seen on the prairie, eking out a scanty subsistence from sage-brush. Six or more birds, clinging to a single shoot as they endeavor to detach what few seeds still adhere, make a pretty sight.

On March 2, 1904, I was driving up cattle during a blizzard. The nearest heifer stepped on a sage-bush, when out fluttered a solitary male Redpoll, in splendid plumage, and attempted to alight on her hock. The heifer kicked at, and narrowly missed the bird, which seemed so dazed that it might, apparently, have been caught by hand. I have seen Redpolls chasing each other as though they were pairing, on March 22. At this time the males sing first after sunrise, or between six and seven.

124. **Acanthis linaria holbœllii.** HOLBŒLL'S REDPOLL.— Rare. Two skins of this subspecies were obtained by Mr. C. F. Hedges at Miles City, March 2, 1900. (See Louis B. Bishop, Auk, XVIII, p. 195.)

125. **Acanthis linaria rostrata.** GREATER REDPOLL.— Rare. Three specimens of this bird were obtained by Mr. C. F. Hedges at Miles City on March 1 and 6, 1900 (recorded in 'The Auk,' by Dr. Louis B. Bishop, as above).

126. **Astragalinus tristis.** AMERICAN GOLDFINCH.— Common summer visitor in both counties. Nests indifferently in pine hills and river valleys. At least two pairs of Goldfinches nested annually on my ranch near Terry, Custer County, and flocks came to my water-troughs in Dawson County.

127. **Astragalinus tristis pallidus.** WESTERN GOLDFINCH.— This subspecies is included by Dr. Mearns in his 'Birds of Fort Custer,' which was formerly in Custer County. (Condor, Vol. VI, No. 1, p. 21.)

128. **Spinus pinus.** PINE SISKIN.— Rare. Six came regularly to my water-troughs in Dawson County during July, 1906. Two were seen near Knowlton May 30, 1907.

129. **Passer domesticus.** ENGLISH SPARROW.— Tolerably common.

I first observed English Sparrows here on December 6, 1899, at Terry. These birds are now common in towns along the Northern Pacific Railroad, and are visitors to different ranches. Numbers frequented, and bred, upon the ranches of Messrs. Archdale and Price, near Knowlton, but all subsequently departed.

130. **Plectrophenax nivalis.** SNOWFLAKE.— Abundant. An erratic, but regular winter visitor in both counties. My records (from 1889) show that this species is most plentiful in February, may appear here as early as November 18, but is not seen after March 16. Snowflakes are more numerous in severe winters, and, associating with Horned Larks, form vast flocks numbering many hundred birds. They are fond of feeding on the haystacks at parts from which the hay has been fresh cut, and rye stacks possess a great attraction for them. In very cold weather their tameness is such that they may be caught with an ordinary stable fork, and during the first week of February, 1893, Mr. J. H. Price saw seven or eight Snowflakes which had been frozen to death. The birds show all shades of buff and gray, while some are black and white with buff heads. Snowflakes perch on corrals here, but I have never observed them to perch in trees, although this is a well known habit referred to by many ornithologists in different parts of the world.

131. **Calcarius lapponicus.** LAPLAND LONGSPUR.— Not common. An erratic winter migrant in very severe weather, associating with flocks of Snowflakes. On February 16, 1904, I kept under observation for two days twenty of these Longspurs, which consorted with several times this number of Snowflakes at my corrals in Dawson County. A flock of about fifty Redpolls nearby, did not mix with the other birds. Some of the adult male Longspurs had conspicuous chestnut on the back of the neck and blue throats, partly concealed by white feathers. Their plumage was altogether brighter than I had supposed from written descriptions. The Longspurs closely resembled the Snowflakes in their habits, and ran about swiftly inside the corrals or perched on the bars. Like the latter, they searched on the haystacks or manure heap, and, as with them, individual Longspurs became absolutely fearless, from the effects of cold and hunger.

132. **Calcarius ornatus.** CHESTNUT-COLLARED LONGSPUR.— Common summer resident in both counties; a typical prairie bird. Arrives in small companies early in May, but never, to my knowledge, in the large flocks characteristic of McCown's Longspur. It always associates with the latter bird, and I have found the nests of both species close together. Chestnut-collared Longspurs only frequent high tablelands, and are most numerous on the big flat about Terry (Custer County) between the Powder River and Fallon Creek, whose southern boundary is the pine hills around Knowlton. One of my pastures, at the commencement of this flat, was a favorite nesting site with them and *R. mccowni.* The birds are paired by the end of May, and set about making their nests of grass, lined with the same or cow hair, on the ground. These are invariably placed under a clump of wild oaks or tall weeds, and the sitting bird is below the surface

of the prairie. I have never seen more than three eggs or three nestlings, although Coues gives the number as four. Often, when riding over the plain, my horse almost stepped upon the sitting female which slipped, fluttering, from her nest into the depths of the surrounding grass. Here the bird would remain invisible but for her maternal anxiety which causes her to hover repeatedly on the wing, and if the horse is moved only a few yards, she at once settles down upon her eggs. The young are generally hatched out during the first week of July, when the parents of this species and the next (*R. mccowni*) run about in the herbage like mice. If the nest is actually discovered, they hover fearlessly above the intruder, and make impetuous dives into the grass. At this time, the females of both species share with Desert Horned Larks the habit of running long distances in the road-ruts directly in front of horses. The young are at first covered with buff-colored down, but when full-fledged (about the middle of July) become very dark gray, inclining to black, with white stripes on the wings. At pairing time, and during incubation, the males indulge in extraordinary tricks of flight, "singing as they fly, rising to a great height and letting themselves down with the wings held like parachutes; they curiously resemble butterflies when so engaged."[1]

By the second week in September the males have lost their nuptial dress, and before the end of the month the birds associate in immense flocks with McCown's Longspurs and Horned Larks. Early in October they leave for the South.

133. **Rhynchophanes mccownii.** McCOWN'S LONGSPUR.— Summer resident; abundant in both counties. Arrives in immense flocks towards the end of April, and is seemingly a most punctual migrant, as my notes give April 26, 27, and 29, for 1897, '98, and '99 as the dates of first appearance. The birds, which scatter over the ground as they alight, hide in the horse and cattle hoof prints, or other holes, and allow themselves to be almost trodden upon before rising. A large flock was driven into the shelter of my ranch buildings, near Terry, during a terrific thunder storm on May 15, 1894. Stones were whirled about and struck against the ranch house, when the thoroughly soaked birds received such a buffeting that they were barely able to fly. McCown's Longspur is in all respects similar in habits to the previous bird (*C. ornatus*) excepting that in my experience the female *R. mccownii* lays four eggs instead of three. On June 22, 1894, I had ample opportunity for observing this species, as, my horse having run away, I was compelled to walk home, ten miles across the prairie. My way was enlivened by the handsome males, which hung above me, before sinking into the grass with a burst of song, in strong contrast to the dowdy, brown females which I frequently flushed from their nests. The eggs differ a good deal; the ground color may be green or white, and an egg may be entirely white, unmarked. Some of the young could fly feebly by July 10.

(*To be concluded.*)

[1] Key to North American Birds, by Elliott Coues, 1887, p. 359.