

about one inch beyond. First six primaries of wing, black with inner edge and tips white.

Tertials, black, with tips—white. A narrow black line extending from them forward to bend of wing.

Several grayish streaks on flanks.

Larger quills of wings and tail—black with white tips.

The two central feathers of the twelve forming the tail are very much elongated and usually are tinted with salmon pink, except at the tip where the color fades into white.

Bill may be either yellow or orange-red. In the latter case the plumage is (strongly) tinted with a beautiful salmon pink—this tint is strongest on sides of neck and breast and on the two central tail feathers. In birds having the yellow bill, the pink is confined to the tail and is sometimes wanting there. The red billed birds are fully adult in plumage, though breeding pairs may consist of both varieties.

Legs—pale bluish-flesh, this color extending almost to first joint of toes. The four toes are connected in one web and these and the webs are black.

Eyes—bluish or brownish-black.

Egg—purplish brown with blotches of darker brown, thickest at larger end.

DIMENSIONS.

Total length—31 inches.

Long tail feathers averaging 18 inches, sometimes 22 inches.

Wing— $11\frac{1}{4}$ inches, extent 38 inches.

Bill—along ridge, 2 inches; tip to gape, $2\frac{1}{2}$ inches.

Tarsus—1 inch, middle toe $1\frac{5}{8}$ inches.

A BREWER BLACKBIRD ROOST IN REDLANDS.

BY FLORENCE MERRIAM BAILEY.

The Brewer Blackbird is a handsome bird, with glossy, greenish black body, of purplish black head and neck, and strikingly pale yellow eyes. He moves with a dove-like motion of the head and the sideways swing of a strong, habitual

walker, but in bearing maintains the characteristic dignity and self-possession of his family.

My acquaintance with him began in the field, where he was found on the ranches and in the mountain valleys and also about the alkaline lakes of California and New Mexico. Besides watching him catch small crabs between incoming waves on the Pacific and little crustaceans on alkaline lake borders in the interior, we had seen migrating flocks swing in to roost in the tules of a remote New Mexico lake, at times overlooked by the tepees of the Apaches. Associating him with such wilds, it was a surprise to find him a familiar lawn bird in the cities of southern California, a bird as tame or tamer than the eastern Robin, sometimes hardly caring to move out of the way of passers-by. A still more surprising exhibition of municipal domesticity was vouchsafed us in Redlands.

We were walking down Cajon Street at sunset on September 6, 1907, when in passing a row of narrow Italian cypresses about the height of the telephone poles, we were startled by a horde of the Blackbirds bursting out of the trees over our heads. When we had walked on, many of them flew back, lighting on the telephone cables in front of the trees, where their black forms were silhouetted against the yellow sunset sky. With my mind preoccupied by meetings in the field, in distant parts of the Sierra Nevada and of New Mexico, it was little less than astonishing to find a roost inside a populous city. Had the birds been Chimney Swifts flying over the housetops to the mouth of a lofty chimney where they could drop down inside protecting brick walls, as they do in some eastern cities, it would not have seemed so surprising, but here was a multitude of large, conspicuous Blackbirds congregating in low trees close over a city sidewalk! Still, although men, women, and children, automobiles, and trolley cars were continually going by, the roost was in a comparatively quiet part of town where the houses were spaced by orange groves, and the nearest residences were across the street.

To an easterner, however, it was a most interesting assembly, and three days later—on September 9—I returned to the place before six o'clock in order to see the birds come into the roost. Blocks away, Blackbird notes were heard, individuals were seen flying high overhead, and small squads were passed perched on telephone poles. When I reached the seven narrow spired cypresses the voices became louder. Some of the birds were already in the trees, while bands were in the street and on the telephone wires. I had not come early enough. Others, mostly in small squads, kept coming from up street, from down street, and from across the orange groves, while approaching black flocks crossed a patch of sunset sky.

Some of the birds that lit on the telephone wires would find it hard to keep their balance, tipping up their tails to steady themselves; but others, better acrobats, would sit and calmly preen their feathers. If a newcomer tried to light too near one already there, he was sometimes pecked at, sometimes merely repelled by an inhospitable reception. On going to the cypresses the birds would light on the projecting tips of the branches and gradually work their way back into the dense evergreen mass. A puffing automobile sent a few flying, and a rattling trolley car sent a large number from the cypresses down into the orange grove behind them. The numbers entering the roost began to fall off after 6:15, and about 6:25 I started home.

While the birds were flying about men, women, and even boys went by without apparently noticing the presence of the roost, though now and then some one casually glanced that way. This was doubtless because it was an old story, for as I was informed later by Judge Warren, who lived across the street, the Blackbirds had occupied the roost for three or four years, coming in large numbers, spring and fall, so regularly that he looked for them every year. A few, he said, remained through the summer and also through the winter.

Wanting to see the Blackbirds come out of the cypresses

in the morning, on September 14 I started for the roost at 5:10 a. m. As it was a foggy morning it had been dark at 4:30, so I had delayed starting, and as I left the house two or three Blackbirds flew over, coming from the direction of the roost. As I walked up Cajon Street I heard an occasional chip from an Anthony Towhee, one faint song from a San Diego Song Sparrow, and a few blackbird notes that made me fear that the birds were leaving the roost, but in each case the notes were traced to a grevillia tree that I was passing. A block away from the roost, however, the sound of many voices told me that I really was too late, and on reaching the roost the wires were already black with birds all talking at once, a mixed medley, surely.

As nearly as I could count them—and except as they moved about the beaded lines of black forms against the gray sky made counting easy—there were about 300 at 5:20, and more were still coming out of the trees. At 5:25 a few were flying away—singly, in twos, or in squads of about half a dozen. At 5:30, while some had gone, enough more had come to the roost to again bring the count up to 300; but at this time they began to leave in appreciable numbers, some of them stopping at the telephone wires farther down the street, but most of them flying on down town, going just about high enough to clear the orange groves and bungalows, not as high as if going to a distance.

At 5:35 their numbers were reduced to about 125, and at 5:40 to about 75. At this time the first wagon came along, flushing a few, and at the second wagon more flew, so that at 5:45 only about 25 were left. Nearly all of them flew during the next few minutes, and at 5:50 only three were left on the wires by the roost and two on wires across the street. In a word, in twenty minutes—5:30-5:50—the entire 300 had dispersed. In the main they had straggled off as if to scatter over the city. As Redlands at that time contained five thousand acres of orange groves and the Blackbirds seemed to be generally distributed over its orchards and lawns, there was abundant territory for feeding ground inside the city limits.

As I went down the street, besides the notes of Anthony Towhees and Goldfinches, of which two small flocks and several individuals were on the telephone wires, I heard the note of a Phainopepla. The Blackbirds, having flown ahead of me, were found walking over the green lawns as usual.

But while I had been greatly interested in what I had already seen, I had failed to reach the roost early enough to see the first birds leave the cypresses in the morning, or to see the first birds come to the roost at night. So, on the following afternoon, September-16, I made an early start, reaching the roost at 4:30 p. m. No birds were to be seen. I was in time, at last. At 4:35 a flock of about a dozen came flying in from up street as if intending to stop, but as something was going on in the street below they flew a few poles down the line and finally disappeared, after which none came for half an hour. Meanwhile I went into the yard of a woman living opposite the roost, where I could get a good view of the birds as they approached, and found her so much interested in the Blackbirds that she and a neighbor had sat out watching them, as she said, "going to bed."

At 5:07 one Blackbird flew over, but no more were seen until 5:25, when four flew straight in to the roost. After this they came straggling along at intervals of from half a minute to four minutes, mostly in small squads—from one to sixteen at a time.

At 5:40 about 100 were scattered along the wires, the males looking very black and the females brown in the full western light. After this the birds continued to straggle in. Nearly all of them came from the northwest, flying in from the roost side of the street. Part of them flew directly to the roost, but more flew first to the telephone wires. Some flew from the roost down into the orchard as a car passed.

By this time a pink haze was growing over the mountains and San Bernardino Peak was flushing. Perching on the green ends of the branches the Blackbirds looked strikingly black. As a particularly noisy automobile passed, a large number flew out, but circled around and lit in the tops of

some eucalyptus and pepper trees, afterwards returning to the roost.

A boy who came along, exclaimed, "They can make an awful fuss about four o'clock in the morning," and said he had been scaring them out. A cat must have climbed the roost trees, he said, "for feathers were all around."

At 5:45 when, almost simultaneously, 15, 11, 2, and 1 came in, the birds were scattered along the cable between six telephone poles and along the wires across the street. At 5:50 the birds were jabbering noisily as they entered the roost, and four minutes later, though 15 more had come, there were only about 75 on the wires. At 6:05 only about 10 were on the wires, and the trees were nearly bare of black forms. After going in, a few would come out, perhaps driven out by neighbors they disturbed or crowded, but after circling around their own tree or going to another down the line of the roost, they would quickly disappear. At 6:12 the last three came, and at 6:14 one was still flying around, though it soon disappeared in the roost. At 6:15 a trolley car came thundering by, but not a bird flew, the trees remaining as silent as though empty. Then a bat came wavering along, and I started home, facing the deep orange red western sky.

The next morning I left the house at 4:40 when the stars were still bright, though it was rapidly getting light. When I reached the roost the row of fan palms bordering the sidewalk were dark against the sky and the peak of San Bernardino and the range beyond stood out black, while the eastern sky was flushed with the same soft mauve light that comes at sunset. As the bell in the church tower struck five I heard the first bird note, the chip of an Anthony Towhee, which was followed by a single *t'chack* from the roost. But not a bird was in sight. I looked about delightedly. The seven tall cypresses pointed to the sky noncommittally. Who could believe that their smug green forms concealed a mob of Blackbirds? I sat down on the curbstone under a fan palm, with an electric light burning above me, a star still shining in the sky overhead.

At 5:07, from the roost came a *twee-dle* and *kwee*, after which the voices piped up with a variety of notes, some harsh, but others soft and liquid as running water, while some were clear and surprisingly musical. Altogether it made a delightful, mysterious concert from the invisible choir within the cypresses. The first movement apparently began with a few birds which had roosted in some grevillia trees back of the row of cypresses.

At 5:10 the first Blackbird was seen flying between the trees. At 5:11 the first bird lit on the telephone cable, but he quickly went back into a tree. At 5:13 three birds appeared on the wires and the first black forms came out on the tips of the cypress branches. At 5:18—five minutes later—over 150 birds were on the cable. As they came up out of the depths of the trees some stopped to sit on the tips of the branches a few moments as if to get waked up more thoroughly, but most of them flew directly to the cables. Occasionally a bird lit on a single wire and tipped and tilted until it decided to fly to a more stable perch. On the big steady cables the birds sat and preened their feathers as if getting ready for breakfast in comfort.

At 5:19 the first stragglers started off, quickly followed by larger bands. At 5:21 about 100 were on the wires, and bands of 14 and 18 left. One small flock crossed the street and swung off to the northeast, but almost all the rest went northwest as they had come. At 5:25 flocks of 20, 17, and 12 left. At 5:27 there were about 90 on the wires. At 5:28 there were again about 100 on the wires and in sight on the cypresses and an adjoining grevillia tree. During the next twelve minutes the birds left rapidly, the number of those on the wires dropping by intervals of from one to four minutes from 100 to 80, 50, 40, 25, 9, and 5. At 5:35 a Western Lark Sparrow sang. At 5:40, when only five Blackbirds were in sight, the first wagon passed and no birds flew. At 5:42 the one bird left on the wires went, flying off by himself toward the east. In other words, from the time of the first note at

5:07, it had taken the birds just thirty-five minutes to wake up and leave the roost.

At Pasadena, later in the month, I got hints of several roosts, one in two Italian cypresses and an unusually spreading, dense umbrella tree. As the migrating hordes take such calm possession of the cities they pass through, roosts could doubtless be found all along their southern California route.

Washington, D. C.

THE GOLDFINCH IN CAPTIVITY.

BY J. CLAIRE WOOD.

As I must lie abed nearly seventeen hours a day, with no prospects of early improvement, what more natural than that my nature-loving temperament should crave a bit of animated nature to relieve the monotony of lonely hours, and what more appropriate than a goldfinch?

With this in mind I explored some promising bushland in Oakwood village on August 8, 1915, and found a nest about three feet above the ground in the vertical fork of a swamp oak branch. The total height of this oak was about seven feet and concealed in weeds eight to ten feet high. The nest contained four young and an egg about to hatch. Twelve days later the five young stood up in the nest alert and ready to flutter into the weeds at too near an approach. The sexes being separable in all plumages I selected one of the two males, and by a combination of strategy and quickness secured it.

With a bird in a small cage at my bedside I could give it the attention necessary to carry it through the critical stage and later transferred it to a large cage on the back porch. All went well until the morning of September 21 when, suddenly and for the first time, the bird developed a desire to escape, fluttering from place to place and pouring forth a volume of excited call notes. The disturbing factor was an adult female on a sunflower head in a cluster of a rare red variety growing in the yard, and henceforth this bird will be