

Four general types of nesting sites were noticed, in the following order of frequency: in natural cavities, under loose bark, in woodpecker holes, and in deserted Verdins' nests. Of 23 nests observed, 12 were in natural cavities, 4 under loose bark, 4 in woodpecker holes, and three in the Verdin's nests. Natural cavities were of various kinds. Some were where a limb had been broken off; others in the crack made by a large branch splitting from the trunk; and again a decayed spot furnished a sufficient hollow to conceal the nest. In all cases the site was in a sheltered or protected position; that is, the trunk leaned enough to shade the entrance from above. A mesquite tree was usually selected, tho others were taken. Of the nests observed, 15 were in mesquites, 5 in palo verde, 2 in ironwood, and one in catsclaw. And speaking of ironwood, I have the most profound respect for the perseverance, endurance and bill-power of the little Texas Woodpecker who drills his nest hole in one of these trees. After cutting into one with a pocket knife, I am willing to give him all possible credit.

The nests were usually not far from the opening of the cavity, three or four inches in most cases, tho exceptions were noticed. One nest was in a deep crack about seven inches from the entrance, and another was six inches deep. The woodpecker hole chosen must have been incomplete as the Warblers nest was only three inches below the entrance. The Verdins' nests used were male winter nests re-lined to suit Mrs. Warbler, and were about six feet from the ground.

Usually a tree standing out by itself was selected, and in no instance was the nest found in a thicket or dense grove. One bird had the home in a dead palo verde, the only dry tree I saw so used. Generally the home tree was not far from water, tho some nests I found were two and three miles from a drink.

The nests were small and compact and well hidden in their cavity. Only twice did protruding material betray the location. In one case nesting material protruded from a woodpecker hole, and the other was a bulky nest that showed from each side of a split branch. This last nest I thought must belong to a House Finch, but investigation showed warbler ownership. Nests were made of bark, weeds, and mesquite leaf-stems, and lined with fine bark, horse and cow hair, a few feathers, and sometimes a little rabbit fur. The site averaged six and one-half feet from the ground, the lowest being 18 inches and the highest 15 feet.

The earliest completed nest found was April 10, and the latest, May 15. Complete sets of 3, 4, and 5 eggs were found. In June and July, family groups of the Warblers were seen about the mesquite trees, tho at the present writing, July 16, the groups seem to be breaking up and scattering.

Sacaton, Arizona.

NOTES ON SOME BIRDS OF KERN COUNTY

By HARRY H. SHELDON

A MINING trip last summer (1908) took me into a region where I found bird life to be exceptionally interesting, for the reason that the country was in two district faunas. A desert-like country abruptly cut into by a mountain range caused the desert and mountain species to mingle in peculiar association. The notes obtained were mostly taken at random as I had but little time to devote

exclusively to bird work. But from the fact that this part of the country is a new field for the ornithologist, my notes altho incomplete will I trust be of interest.

We were about twenty-five miles northeast of Bakersfield, in Kern County, in a rocky little gulch of the Long Tom mining camp. This is in a chain of foothills known as the Poso Range, which is the dividing line between a vast expanse of barren buttes and mesas, and the big timber country of the Green Horn Range, a part of the Sierras. About the mine the country is rolling and barren except for numerous outcropping granite ledges. But to the north of us, with the increasing altitude, which is about 500 feet along the range, a scant growth of scrub oak commences to relieve the monotony of the country. Occasionally a spring would give nature a chance to decorate the dry surroundings with a clump of willows, and in such places a variety of birds would be found nesting.

In one instance when I was on my way to the Granite Station post office, a six mile walk from Long Tom, I made an unusual discovery. It was a hot day in August, about 110 in the shade, and visions of a tall cold glass had already commenced to make that desert thirst seem unbearable, when the quarrelsome chatter of several Kingbirds compelled me to change my course in the direction of a clump of willows standing alone in a little piece of desert country and shading a small herd of cattle. The cattle, a bunch of wild two-year-olds, stampeded in a body at my approach, causing considerable excitement among the bird residents. These proved to be of more than one variety. In the five trees, three of which were willows and two cottonwoods, I counted fourteen nests. Seven were of different species. The Kingbirds' I noticed first in the top branches of one of the cottonwoods; three families were in evidence, one brood still in the nest. A California Cuckoo next attracted my attention to one of the willows; and I found a nest belonging to this species, with the remains of a dead young one and some egg shells. It seemed probable that the bird seen was one of the parents, as the contents were of recent date. Evidently the mate had met death in some manner, with the result that the nest was deserted. The nest was six feet from the ground, placed on a large branch about five feet from the body of the tree. Several dead limbs and surrounding twigs gave it a sheltered appearance. In this same willow, where a mass of old leaves and dead branches had collected between the center limbs, was a nest of young Towhees. In the cottonwood with the Kingbirds were two Doves' nests, one with half-feathered young; and a Lark Sparrow's nest also contained young. In the remaining willows were two nests of the Bullock Oriole with the young about the trees, and three Doves' nests. And last but not least, in the center of the other cottonwood was a big black bunch that proved to be an old nest of a Red-tailed Hawk; and when I started up to investigate, out flopt a Barn Owl, which awkwardly circled into the air and laboriously flew in the direction of a dead oak far away on the range above. It was evidently just a good roosting place, for nothing denoting the presence of an owl family was seen.

Of course, such an unusual nesting occurrence was infrequent. Only in one other case did I find as many nests together. Two cottonwoods standing by the well at Long Tom contained sixteen nests, of which eleven were Bullock Oriole's; one Lark Sparrow's; two Kingbirds' with young; one Dove's nest and one House Finch with young. More than half of the Orioles' had been occupied that year and three contained young in July.

I found the Rufous-crowned Sparrow to be quite plentiful along the range, inhabiting the wild gooseberry thickets in the canyons and in such patches growing among the rock piles on the hills. On several occasions I noticed young birds with their parents, and recently occupied nests in the vicinity possibly belonged to this species. The birds were not uncommon, and owing to the bareness of the

country they select for a breeding place, it would be comparatively easy to locate their nests in the proper season.

The most conspicuous bird about us was the Rock Wren, and altho I found an occasional nest in a niche or crevice of a rock wall or boulder, their favorite haunts about the mines were the entrances to old diggings, shafts and tunnels where between the timbers and the wall was afforded fine shelter for a nest. In such places I found several nests, but all vacated. The birds were tame and would frequently roost between the rafters of our cabin. One little fellow was bold enough to come thru the roof of our kitchen and help himself to anything in his line. He seemed to know just the right time to call, for when I would return from the mine to prepare lunch, I would invariably get a glimpse of his tail feathers disappearing thru a hole in the roof; and the tell-tale footprints in the "hold-overs" of the previous meal gave evidence of the Rock Wren's doings. Many good things have been said of this bird and he is certainly deserving of them. His pleasing characteristics and inspiring song helpt much to leave me a pleasant memory of the comparative desolation of Long Tom.

Poso Creek, about three miles from Long Tom as the crow flies, is the real mecca for bird life of this region. At a point directly at the foot of the Long Tom gulch is the most picturesque part, as it passes thru a narrow gorge with perpendicular cliffs rising some three or four hundred feet in places. Huge boulders which in some decay have slid or dropt from the hills above, form the creek bed, and together with a thick growth of sycamores and cottonwoods with their handsome foliage, make a picture one would hardly imagine seeing in the dry barren country that bounds the creek on either side. A miniature stream with just enough water to give one a satisfactory drink, trickles down the rocky formation of the creek bed, but eventually disappears in the sand where it leaves the gorge.

From here on, the trees and thickets of blackberry vines, impenetrable patches of nettles and other underbrush, mark its course thru the buttes and mesas to the San Joaquin Valley. And from the pine wood country at its source at Poso Flat, to its termination in the San Joaquin, is a stretch of collecting ground that should reveal some surprizes for the ornithologist.

Thru the kindness of Mr. Grinnell the identity of a few species taken was made certain, particularly the new record for the Black-throated Sparrow. The following list includes a majority of the birds seen in the region of Long Tom.

Oreortyx pictus plumiferus. Mountain Quail. One was flusht on Pine Mountain three miles north of Long Tom. The species is very rarely seen as low as this, but is plentiful in the Greenhorn Range.

Lophortyx californicus vallicola. Valley Quail. Abundant, more so than I have ever seen them elsewhere in California. Not seen south of Poso Creek.

Zenaidura macroura carolinensis. Mourning Dove. Plentiful, breeding anywhere near water.

Cathartes aura septentrionalis. Turkey Vulture. Common.

Accipiter cooperi. Cooper Hawk. Seen once near Poso Creek.

Buteo borealis calurus. Western Red-tail. Common everywhere.

Buteo swainsoni. Swainson Hawk. Seen once.

Aquila chrysaetos. Golden Eagle. One day I saw a pair making great sweeps toward the earth from a terrific hight. They were almost directly above me and the performance was the greatest spectacle of flight I have ever witnest. They would poise for a second, close their wings and then shoot downward like meteors for a hundred feet or more; then swerve up, repeating the same thing over and over until they reach terra firma. It seemed as tho they just did it for fun, one

trying to beat the other to earth. They separated upon reaching a short distance from where I was standing and disappeared over a hill. In a few minutes a familiar screeching whistle echoed up the canyon and, sneaking down to a turn some hundred yards below, I saw one of them perched on a cliff a hundred feet from me. I pictured a fine mounted specimen for my den. But then it is probably better that the gun had been left behind.

Falco peregrinus anatum. Duck Hawk. One seen about the cliffs above Poso Creek, and a female taken August 16 in the Long Tom gulch.

Falco sparverius. Sparrow Hawk. Common everywhere.

Aluco pratincola. Barn Owl. Common in the rocky canyons and about the mines.

Otus asio bendirei. California Screech Owl. Heard at Poso Creek.

Bubo virginianus pacificus. Pacific Horned Owl. Common along the Cliffs of Poso Creek and in the canyons of the foothills. A female taken August 14.

Speotyto cunicularia hypogaea. Burrowing Owl. Common south of Poso Creek.

Geococcyx californianus. Roadrunner. Common on Poso Range. A specimen taken July 19. In one of the large steel water-tanks at the mine I found two young birds which had fallen or jumped in for a drink and were drowned. There were four of these tanks, which proved to be death traps for many birds and mammals. Twice I picked out ground squirrels in a dying condition which had fallen or jumped into these half-filled tanks. Cottontails, squirrels, mice, bats and birds made up the list of unfortunates that came to grief in this manner.

Coccyzus americanus occidentalis. California Cuckoo. A few seen in willows at springs in the foothills.

Dryobates villosus hyloscopus. Cabanis Woodpecker. A few seen in the pine country at the head of Poso Creek.

Dryobates nuttalli. Nuttall Woodpecker. Fairly common. One taken at Long Tom.

Melanerpes formicivorus bairdi. California Woodpecker. Seen in pines at head of Poso Creek.

Asyndesmus lewisi. Lewis Woodpecker. Common on the oak flats on the north side of the Poso Range.

Chaetura vauxi. Vaux Swift. Common along Poso Creek where first seen September 16.

Archilochus alexandri. Black-chinned Hummingbird. Several seen on Poso Creek.

Calypte anna. Anna Hummingbird. Common along Poso Creek and about springs in the foothills.

Tyrannus verticalis. Western Kingbird. Breeding commonly.

Sayornis saya. Say Phoebe. Common; nests found about Long Tom on beams in old cabins and mills.

Sayornis nigricans. Black Phoebe. Fairly common along Poso Creek, and a few around Long Tom.

Myiochanes richardsoni. Western Wood Pewee. Breeding along Poso Creek.

Otocoris alpestris actia. California Horned Lark. Common everywhere.

Corvus corax sinuatus. Western Raven. About ten birds were seen all told, usually in pairs.

Corvus brachyrhynchos hesperis. Western Crow. Quite abundant along Poso Creek.

Sturnella neglecta. Western Meadowlark. Fairly common.

Icterus bullocki. Bullock Oriole. Common along Poso Creek and about

springs in the foothills. Beautifully constructed nests were found in barren gulches hung in wild tobacco plants not more than 5 to 8 feet high.

Euphagus cyanocephalus. Brewer Blackbird. Common along Poso Creek.

Carpodacus mexicanus frontalis. California Linnet. Abundant everywhere.

Chondestes grammacus strigatus. Western Lark Sparrow. Common everywhere; especially so along Poso Creek.

Passerculus sandwichensis alaudinus. Western Savannah Sparrow. A few seen near the head of Poso Creek and two taken.

Spizella breweri. Brewer Sparrow. Large flocks appeared in September on the oak-covered hills.

Amphispiza bilineata deserticola. Desert Black-throated Sparrow. Two birds together near the head of Poso Creek, and one was secured. This is a record for the species, being the first known instance of its occurrence inside the San Joaquin Valley.

Aimophila ruficeps. Rufous-crowned Sparrow. Fairly common on brushy hills and in canyons. Two specimens taken.

Zamelodia melanocephala. Black-headed Grosbeak. A few seen at Poso Creek.

Guiraca caerulea lazula. Western Blue Grosbeak. Two males seen at Poso Creek.

Piranga ludoviciana. Western Tanager. A few seen at Poso Creek in September.

Tachycineta thalassina lepida. Northern Violet-green Swallow. A flock of several hundred flew up the Long Tom gulch one evening and disappeared over the range. Two immature birds were secured.

Lanius ludovicianus gambeli. California Shrike. Fairly abundant about the foothills.

Vireosylva gilva swainsoni. Western Warbling Vireo. Seen occasionally at Poso Creek.

Vermivora rubricapilla gutturalis. Calaveras Warbler. One specimen secured in September, when the species appeared to be abundant about springs in the canyons.

Dendroica aestiva brewsteri. California Yellow Warbler. Fairly common at Poso Creek; occasionally seen at Long Tom.

Dendroica nigrescens. Black-throated Gray Warbler. A few seen in the latter part of September and one specimen taken.

Wilsonia pusilla chryseola. Golden Pileolated Warbler. Common along Poso Creek; occasionally seen around Long Tom.

Mimus polyglottos leucopterus. Western Mockingbird. A few seen in rocky canyons at Long Tom. Also at Poso Creek.

Salpinctes obsoletus. Rock Wren. Very common; nests plentifully about Long Tom.

Catherpes mexicanus punctulatus. Dotted Canyon Wren. Fairly common along Poso Creek; two taken.

Sitta carolinensis aculeata. Slender-billed Nuthatch. One seen running up the side of our cabin at Long Tom.

Baeolophus inornatus. Plain Titmouse. Fairly common along north side of Poso Range.

Psaltriparus minimus californicus. California Bush-tit. Fairly abundant in the foothills.

Polioptila caerulea obscura. Western Gnatcatcher. Very common about the hills and at Poso Creek.

Sialia mexicana occidentalis. Western Bluebird. A few small flocks seen in September along Poso Creek.

San Anselmo, California.