

seemed to change tactics and to become quite meek. While we were getting pictures of him, the parents sat about only a few feet away. They were almost devoid of fear, for several times they stood within five or six feet of us in perfect unconcern. Of course, we had been extremely careful from the first not to scare them and not to make any quick movements while they were so near. In all our study of the home life of these birds, there was never the slightest indication of ferocity on the part of the parents. Their attitude was one of anxiety and solicitation.

The last afternoon when we took the young condor out of his cave and he appeared blindfolded, the mother jumped back as if scared, for she could hardly recognize him without a head. We placed him on a narrow ledge of rock, removed the blind and the mother edged down to her young. Then she began caressing him, pushing her head under his wing and biting him gently on the leg. I never saw a greater show of affection in any bird than the two condors seemed to have for each other and for their young. The longer we studied and the more we watched this family, the stronger our own attachment became for the birds.

While we were taking our final pictures of the condor family, two more condors appeared high above. With a field-glass, we recognized one as the former visitor, the ragged bird with missing feathers in the wing and tail. The two new arrivals sailed about in circles for a while and then we saw the ragged bird descending. The father of the young condor seemed to get more anxious and flapped across the canyon and back. On came the visitor till he was only a short distance above the top of the mountain. Then the father sailed rapidly down the canyon and around the bend out of sight. The third bird dropped lower and lower in circles while his mate stayed higher up in the sky. The father of the young bird was gone about five minutes, when he suddenly appeared right over the top of the mountain and higher than the visitor. He had made a feint and got the advantage of position. Drawing his wings partly in, he dove at the intruder who saw him coming and increased his speed down the canyon. Dodging the enraged condor, he circled back up a small side ravine and both disappeared behind the mountain. In a few minutes, they came into view again higher in the air and going toward the west, the old condor flapping wildly to strike a blow and the pursued one dodging back and forth to escape. They were undoubtedly two males, for the mother sat calmly looking at the chase, while the mate of the ragged bird sailed about watching the outcome. After another wait of several minutes, the two birds appeared again, but far up in the sky; the ragged bird was flying straight to the east, still dodging the mad condor at his tail. And on they went as far as I could see, with the mate of the ragged bird following some distance in the rear. In about half an hour, the father again appeared, sailing slowly back alone, victorious in the chase.

Portland, Oregon.

SPRING NOTES FROM SANTA CATALINA ISLAND

By CHARLES H. RICHARDSON, JR.

SANTA Catalina Island lies about twenty-five miles off the coast of Los Angeles County, California. It is an exposed portion of a mountain range, of which the other islands of the Santa Barbara Group are a part, and is twenty-three miles long with a maximum width of eight miles. The surface of the Island is broken by many canyons, some short with steep, almost precipitous

sides, others reaching far into the interior of the Island. Their lower courses widen out into sandy washes.

Vegetation is heaviest on the shady north slope of the hills, and in the canyons containing water. In the latter localities, cottonwood trees (*Populus trichocarpa*) attain a good height, and here are also found groves of wild cherry trees (*Cerasus lyoni*), and a species of scrub oak. The hillsides are covered with a number of different kinds of brush, prominent among them being the scrub oak and a sumac.

These notes are the result of two brief sojourns on Santa Catalina Island in the month of April, eight days being spent in 1905, and five in 1906. Fortunately both trips were made after wet seasons; the hills were carpeted with grass, flowers and insects were abundant.

As practically all the time was given to the study of the land birds, only these will be mentioned in the annotations to follow.

One accustomed to a large and varied avifauna is at once impressed by the scarcity of species on Santa Catalina Island. As one stops to rest in the canyons, or looks out on the blue Pacific from a hill top, scarcely a sound is heard. To be sure, one occasionally catches the song of a Mockingbird, the hoarse croak of a Raven, or the faint note of a Warbler; but there is no ringing medley of bird voices so often heard upon the mainland.

Lophortyx catalinensis. Catalina Island Quail. Abundant both seasons. A half-completed nest was found on a narrow ridge that overlooked the ocean. It resembled the nests of the mainland species, being built of dried grass in a hollow flush with the surface.

Zenaidura carolinensis. Mourning Dove. Seen about springs where they came to drink. The birds were paired at the time of my visits. An old nest was found, proving the species to be resident.

Accipiter velox. Sharp-shinned Hawk. On April 19, 1905, an individual of this hawk was flushed from a thicket of scrub oak. This was the only one seen.

Buteo borealis calurus. Western Red-tail. Common about the hillsides, especially where ground squirrels are abundant.

Haliaeetus leucocephalus. Bald Eagle. A number of bald eagles were seen circling about the cliffs.

Colaptes cafer collaris. Red-shafted Flicker. Flickers were seen but twice. They are probably only winter visitors to the Island, as a diligent search in suitable places failed to reveal a single nesting hole.

Phalacroptilus nuttalli californicus. Dusky Poor-will. Occasionally seen at dusk in the wash back of Avalon. Altho no specimens were taken, the birds seen were probably referable to this form.

Aeronautes melanoleucus. White-throated Swift. White-throated Swifts were often seen flying over a grassy ridge back of Avalon. After wasting much ammunition, a beautiful female specimen was secured.

Calypte anna. Anna Hummingbird. A few Anna Hummingbirds were seen, but they were not nearly so plentiful as *Selasphorus alleni*.

Selasphorus alleni. Allen Hummingbird. An abundant resident at the time of both my visits; the breeding season was well advanced, many nests being found which contained large young. The nests were nearly always built in oaks or cottonwoods in narrow canyons where there was water. Only once did I find this rule violated, in this instance the bird building its nest in a sumac which grew in a sandy wash.

The basis of the nest was, with a few exceptions, sheep's wool. This was

fastened to the twig by the aid of spider-web, the same substance being used to adhere green moss to the outside. Occasionally vegetable down was used in the lining. The dimensions of two nests are as follows:

I. Outside—Diameter, 59 mm., depth, 37 mm. Inside—Diameter, 35 mm., depth, 15 mm. II. Outside—Diameter, 47 mm., depth, 35 mm. Inside—Diameter, 27 mm., depth, 15 mm.

The males resorted to the wild tobacco bushes (*Nicotiana glauca*) which grew abundantly in the washes. They were very pugnacious little fellows, constantly fighting and chasing one another about.

Sayornis nigricans. Black Phoebe. A single individual was heard on the morning of April 18, 1906. This was the only one noted.

Empidonax difficilis. Western Flycatcher. One of the most abundant birds on the Island. Found wherever there is shrubbery, from the shore to the highest ridges. The birds were in pairs and the breeding season was apparently just beginning, one partly completed nest being found.

Some time was spent in watching the owners of this nest. One of the birds would work on the nest, while the other, presumably the male, would place itself in an exposed position to ward off intruders. Evidently it classed all birds as intruders, for an innocent Dusky Warbler, which happened to alight in the tree, was instantly driven off, leaving behind a goodly number of feathers.

The inadvisability of retaining the name "*insulicola*" for the *Empidonax* from the Santa Barbara Islands has been discussed in previous numbers of THE CONDOR¹ and will not be reiterated here.

Corvus corax sinuatus. Mexican Raven. Very common. Most any time several could be seen flying about, and uttering a peculiar clicking note.

On April 19, 1905, a nest containing six eggs was found. It was built in a wild cherry tree fifteen feet from the ground, and was made of good-sized sticks, lined with black and white sheep's wool. Incubation was fresh in every egg but one, that being slightly addled.

Icterus cucullatus nelsoni. Arizona Hooded Oriole. Heard once on April 16, 1906. Probably more common later, as I have observed them a number of times in the summer.

Carpodacus mexicanus clementis. San Clemente Linnet. Abundant in the eucalyptus trees about Avalon and in the cactus patches farther inland where they were nesting. Many partially finished nests and incomplete sets were noted, indicating that the breeding season had just begun. The nest is built on a branch of cactus usually well in toward the center of the patch, and is composed outwardly of weeds and like substances, lined with grass and sheep's wool. A set of four eggs taken are essentially like those of the mainland form.

Astragalinus psaltria hesperophilus. Green-backed Goldfinch. Observed several times in the weed patches on the hillsides.

Astragalinus lawrencei. Lawrence Goldfinch. Lawrence Goldfinches were seen several times flying overhead, uttering their characteristic metallic notes the while, but were not as common as the Green-backed.

Zonotrichia leucophrys gambeli. Intermediate Sparrow. Quite common in the washes. As they are known to be an abundant winter visitant² probably the bulk of them had gone north before my arrival.

Zonotrichia coronata. Golden-crowned Sparrow. Seen on several occasions in 1906 but not detected in 1905. They frequented the washes in company with the previously named species.

¹ See CONDOR Vol. VII, No. 2, pp. 51-52; and CONDOR Vol. VIII, No. 3, p. 74.

² See Auk Vol. XV, No. 3, p. 235.

Spizella socialis arizonæ. Western Chipping Sparrow. Abundant everywhere and in full song. One was seen carrying nesting material, and old nests were found, which shows that they are summer residents.

Passerella iliaca insularis(?) A Fox Sparrow was noted on April 21, 1905. It was feeding on the ground beneath a clump of bushes, and at intervals uttered a low warbling song, similar to the song of the Green-backed Goldfinch, but sweeter. It probably belonged to the form *insularis*.

Pipilo maculatus clementæ. San Clemente Towhee. Very abundant especially in the washes. Nine specimens, six males and three females were secured. Compared with specimens of *Pipilo maculatus megalonyx* in my collection, they have larger bills and are grayer dorsally, this latter condition being especially prominent in the females.

Cyanospiza amœna. Lazuli Bunting. Seen occasionally in the canyons where water was present, but not very common.

Lanius sp? About half a dozen shrikes were seen on the golf links back of Avalon. In 1905 three fully fledged juveniles being fed by their parents, were noted. The status of the Catalina shrike has not been determined.

Helminthophila celata sordida. Dusky Warbler. Dusky Warblers were very common in the canyons and in the scrub oaks on the hillsides, where they were nesting. The hight of the breeding season must be the last of March, for many fully fledged juveniles and nestlings were seen by the middle of April. They were nesting in small scattered colonies, the nests usually being placed in scrub oaks from fifteen to twenty feet from the ground. Some nests however were built in sumacs, and one was found in vines overhanging a gorge. They were quite bulky affairs, made of leaves, small twigs, grass and bark, lined with fine grass or sheep's wool. Dimensions of two nests are as follows:

1. Diameter—Outside, 3.50 inches; inside, 1.50 inches. Depth—Outside, 5.00 inches; inside, 2.25 inches.

II. Diameter—Outside, 3.75 inches; inside, 2.00 inches. Depth—Outside, 3.00 inches; inside, 1.50 inches.

Several clutches of four eggs were noted, besides quite a number of incomplete sets. The ground color of the eggs is ivory white, dotted and finely blotched with burnt sienna and pale lilac.

The female is a very close sitter, almost allowing herself to be removed by the hand, and when driven from the nest feigns a broken wing, falling lightly to the ground, only to return and repeat the process, or utter scolding notes resembling "chit-chit."

The male bird was always present with the female when the nest was being examined, but did not express so much anxiety as his mate. When the female was sitting he would hop about in the nearby trees, uttering at intervals his beautiful warbling song, "ti-ti-ti-ti-ti-ti-ti-ch-ch-ch," beginning quite slowly and gradually gaining in rapidity. This, I must say, is a poor rendition of the song, as there is a certain metallic ring to it, which cannot be expressed in words.

Dendroica auduboni. Audubon Warbler. Quite numerous in the washes.

Mimus polyglottos leucopterus. Western Mockingbird. Abundant everywhere and in full song. I was very much surprised to hear this bird give a perfect imitation of the cry of the Western Gull.

Thryomanes bewicki charienturus. San Diego Wren. Abundant in the washes where many juveniles were observed, indicating that the breeding season is early in March.

Hylocichla guttata nana. Dwarf Hermit Thrush. A very few individuals of this species were seen in the brush tangles in the canyons. One was heard singing its exquisite song.

Pasadena, California.