

## Land Birds of San Onofre, California

BY JOSEPH DIXON

**I**N the extreme northwestern corner of San Diego County, California, there is an old Mexican grant which still remains undivided and unsettled. The general topography of this locality consists of low rolling hills which increase in height and ruggedness as they extend inland, until they terminate in the San Onofre Mountains which have an altitude somewhat less than 3000 feet.

The San Mateo and San Onofre rivers drain nearly all of this part of the County. These rivers widen out near their mouths forming lagoons and 15 or 20 acres of salt marsh. Extending inland along each of these river valleys there stretches an almost continuous grove of sycamores. The north sides of the hills are covered with live oaks and a tangled growth of poison oak and lilac brush. But near the coast the southern slopes, which lie fairly exposed to the sun, are covered with a sparse growth of "old man" and cacti.

The whole country is one vast cattle range on which hunting has been, and is, prohibited, and as the conditions are unusually favorable there is an abundance of bird life which offers some exceptional opportunities to the bird student. For this reason Philip Pinger and myself have made three trips to this locality. The first trip was made May 27 to 30, 1904; the second, March 25 to April 2, 1905; and the last visit extended from March 23 to April 1 of the present year.

There had been a series of very dry seasons previous to our first visit and we found that the scant growth of grass had withered by May. The unusually abundant rains of the last two seasons have worked a wonderful change in the appearance of the country. The cactus which was formerly so conspicuous on the southern slopes is now hidden by a luxuriant growth of flowers and chilicothe vines. These seemingly innocent beds of flowers sometimes give the collector a painful surprise as he finds a large knob of cholla cactus tightly attached to his leg. These cactus patches are especially formidable to the collector as he tramps wearily campward in the darkness of evening.

We made several short trips up and down the coast and twice we cut across the mesa and went up the river valleys for an all-day jaunt. But all of our observations were made within a radius of six miles of our camp near the railroad station called San Onofre.

American ravens were often seen flying in pairs across the valley or up the coast. They often circled around camp to see if they could find scraps of meat that had been thrown out. This is the only locality in which I have found this species to be tame. It was a daily occurrence to see four or five ravens hopping around the scrap heap near the tent and once we counted six ravens feeding in the door yard within a few feet of a fisherman's tent. At another time we counted ten ravens and thirty or forty turkey vultures around the fresh carcass of a cow. This carcass was picked to the bone in three days. A male raven shot March 24, 1906, had a meadow mouse, one Jerusalem cricket and a centipede 106 millimeters long, in its stomach. We found several ravens' nests along the seacoast. These nests were situated in potholes usually near the tops of the cliffs. On March 24 we flushed a raven from a nest which was about 75 feet from the top and 60 feet from the bottom of the cliff. But we failed to secure the eggs.

Among the large number of species found, none were more conspicuous by day and night than the hawks and owls. We found the western red-tail and sparrow hawks and the Pacific horned and barn owls especially abundant. In

one valley in a distance of six miles we found twenty-two hawks' nests. Seven of these nests were occupied by red-tails, three by horned owls and one by a red-bellied hawk. Each pair of red-tails usually had two and sometimes three nests, for they seem to occupy different nests from year to year. Two nests were often found built close together and in one instance there were three nests in one clump of trees.

These twenty-two nests were all located in sycamores which often stood at a bend in the creek or near the edge of the grove. By actual measurement we found that the average height from the ground of twenty-two nests was fifty-five feet. The extremes were seventy-five and forty-three feet. We estimated that there was a pair of hawks to every one-half square mile of territory. What becomes of the offspring in this densely populated district is a problem that I have been unable to solve. But some of them evidently stay near their birthplace as we found that out of seven pairs, two pairs had moved in since last year.

Each pair of hawks had its own squirrel pasture and the birds resented the trespassing of other hawks on their domain. The remains of gophers, ground squirrels, meadow mice, young cottontails and two species of snakes, the striped racer and gopher snake, were found in red-tails' nests, but ground squirrels seemed to be their principal diet. I found as many species of small mammals in hawks' and owls' nests in two days as I did by trapping for a week.

In 1905, between March 25 and April 1, we found thirteen pairs of red-tails nesting, but none of the eggs had hatched up to that time. One set of four, four sets of three, seven sets of two and one incomplete set of one were found, making a total of thirteen sets and thirty-one eggs. This year fourteen pairs of red-tails were located.

On March 28 a nest was found that contained two eggs and one young bird. One of these eggs was moving about in the nest and when I turned it over I found that the young bird had its bill out and was wriggling and squeaking feebly. The hole in the egg attracted my attention as it had apparently been made from the outside instead of the shell being pushed out from within; for the pieces of shell about the edges of the hole all pointed inward instead of out, and the hole was not big enough for the young bird to stick its head out and then draw it back thus drawing the pieces of shell with it. I have noticed this same thing before and believe that sometimes the old bird pecks the hole, thus aiding the youngster to escape at the proper time.

Another nest was found just ready for eggs on March 30. The other twelve nests contained the following: two sets of four, four sets of three and six sets of two. In 1905 twelve sets made a total of twenty-nine eggs. In 1906 twelve sets made a total of thirty-two eggs. Thus it will be seen that there were ten per cent more eggs laid this year than there were last year. In a number of cases the bird that laid two eggs last year laid three this year and the birds that laid the sets of four this year laid only three eggs last year.

It is interesting to note that the eggs as well as the sets were larger this year than last. The average measurements of twenty-six eggs last year were 2.36 x 1.78 inches, while this year the average of thirty eggs was 2.39 x 1.84 inches. The average number of eggs in a set was 2.38 last year and this year it was 2.66. The average measurements of fifty-seven eggs was 2.38 x 1.81 inches and an average based on twenty-five sets showed that there were 2.52 eggs in each set. The largest set of eggs found measured 2.45 x 2.00, 2.56 x 1.95, 2.46 x 1.99 inches, while the smallest eggs measured 2.23 x 1.73, 2.30 x 1.78 inches. The smallest number of eggs in a complete set was two and the largest four.

Five pairs of birds were watched to see if they would lay eggs of the same number, size, shape and markings from year to year. Three pairs of birds occupied the same nests during the two years and the other two pairs each moved to other nests in the same grove. The individuals had certain characteristics, as dark or light plumage or a peculiar harsh note while one pair made themselves conspicuous by their silence; so identification was quite certain and we were reasonably sure that we did not get the pairs confused.

In 1905 one pair produced a set of two eggs which measure  $2.53 \times 1.78$ ,  $2.55 \times 1.83$  inches. One egg of this set was covered with clay colored markings which merged together forming a hazy cloud around the large end. The other egg was similar to this but the markings were of a vinaceous buff tint and surrounded the small end. This year a set of three eggs laid by the same bird measure  $2.38 \times 1.81$ ,  $2.32 \times 1.76$ ,  $2.42 \times 1.78$  inches. These eggs were evenly covered with splashes that vary in size from a pin point to 25 square millimeters and fade from a cinnamon rufous to heliotrope purple. Thus it will be seen that these two sets differ, in number, size, shape and markings.

Another pair laid three eggs last year which measure  $2.34 \times 1.87$ ,  $2.33 \times 1.88$ ,  $2.32 \times 1.87$  inches. Two of these eggs were covered about the little end with chestnut colored spots that were arranged in a concentric position around the small end. These spots were large and gradually faded from chestnut to hazel as they approached the end of the egg. The other egg had only a few scattering hazel markings. This year this pair laid four eggs which have almost identically the same ground color, shape and markings as last year's eggs. The eggs measured  $2.28 \times 1.86$ ,  $2.29 \times 1.83$ ,  $2.29 \times 1.84$ ,  $2.30 \times 1.84$ . In this instance the bird laid the same type of eggs for two consecutive years.

The third pair laid a set of two eggs in 1905. The ground color of these eggs was almost white. One egg was covered about the small end with clear-cut chestnut splashes that centered about the small end of the egg. The other egg had a few very small vinaceous spots scattered evenly over its surface. This year this pair laid a set of three eggs. The ground color of this set was darker than that of the other set. One egg was covered about the small end with heavy burnt umber splashes. The second egg had a number of large brown spots on the large end, while the third egg was covered over the large end with indistinct clay colored splashes. The two sets measure  $2.35 \times 1.82$ ,  $2.37 \times 1.83$  and  $2.33 \times 1.84$ ,  $2.28 \times 1.87$  (the third egg was broken).

The fourth pair laid two eggs this year as well as last year. The set last year had a dirty ground color and was marked with a few scattering hazel smudges. The eggs laid this year were nearly exactly the same in size, ground color, incubation and markings.

The last pair laid a set of two in 1905. These eggs were small ( $2.23 \times 1.73$ ,  $2.30 \times 1.78$ ) and had a few heavy spiral vinaceous spots on the large end. Another set from the same pair of birds measure  $2.33 \times 1.89$ ,  $2.24 \times 1.82$  inches. One of these eggs was particularly handsome as it was heavily marked on the little end with heavy clear-cut cinnamon-rufous splashes. The other egg was similar only the markings were not so brilliant.

These observations show that some pairs of red-tails lay the same shape, size, number and marked eggs, for two consecutive years. But in the present instance the majority did not do this.

In 1904 we saw several Pacific horned owls, but they seemed to have almost disappeared in 1905. I was also informed that horned owls were rarely met with that season in the central part of the County, where they had formerly been com-

mon. It seemed as tho a general exodus had taken place. This year we found four pairs of horned owls, all of which were nesting in red-tails' nests. On March 29 a set of two sterile eggs were taken from a red-tail's nest sixty feet up in a sycamore. The bird flushed when we were about 150 yards from the nest. This timidity was probably a personal characteristic of that individual as they are usually hard to flush. A partially devoured wood rat was found on the edge of this nest. On March 30 two other nests were found both containing downy young about a week old. As I was climbing up to one of these nests the old bird flopped off just as I reached the base of the nest while her faithful spouse sat snoozing away, hunched up on a limb that extended out beyond the nest. A fourth bird was flushed but we did not investigate the contents of the nest. Among other things found in horned owls' nests were the remains of meadow mice, gophers and a brown-footed wood-rat.

Several barn owls' nests were located in hollow sycamores and crannies in the cliffs. One nest which on March 25, 1905, contained four eggs and one newly hatched young held three half-grown young on March 25, 1906. California screech owls were not at all plentiful and no nests were located.

A pair of burrowing owls were seen on March 30. One was sitting at the entrance of a deserted ground squirrel burrow while the other perched on a newly installed telephone pole which was evidently a welcome improvement in their domain as it afforded the only elevated perch in the neighborhood.

American sparrow hawks were common in the sycamores where they nested in natural cavities and in old flicker holes. A set of five fresh eggs was found March 27, 1903, and a nest with four full-fledged young was located on May 29, 1904.

Red-bellied hawks made themselves conspicuous by squalling as they flew about over the northern oak-covered slopes. The crows and red-bellied hawks usually nested in the same locality and it was hard to distinguish the hawks' nests from the crows' nests as the birds were shy and often flushed before we located the nests. On April 1, 1905, we found a nest with the old bird sitting. The nest was placed up against a trunk of a large sycamore that towered up above a dense grove of live oaks. The nest had evidently been used for several years previously and had just been relined with sycamore bark and green leaves. The nest contained three handsome eggs in which incubation had just started. The ground color of all the eggs was clear white. Two of the eggs have a series of heavy bay blotches about the larger end. One of these eggs was especially well marked being the handsomest egg out of twenty-three sets and sixty-five eggs. The third egg had only a few pale heliotrope purple shell markings.

On March 30, 1906, I found another nest that I had missed the previous year. This nest was up against the main branch of a tree that ran out over a creek. The bird flushed when I rapped on the tree trunk. The nest was lined with fine sycamore bark and contained three eggs of the regulation type. The six eggs measured 2.06x1.57, 2.13x1.63, 2.07x1.60 and 2.18x1.67, 2.16x1.67, 2.18x1.70. A male red-bellied hawk shot April 1, 1905, had one Jerusalem cricket and two fence lizards in its stomach.

About five miles back from the coast there was a large crescent-shaped sandstone cliff that had numerous potholes in its face which from a distance gave it the appearance of having had the small pox. It appeared as tho the whole side of the hill had slumped off into the canyon leaving a cliff about 150 feet high. On April 1, 1905, we discovered that a pair of duck hawks were nesting in one of the pot-holes. But the cliff bulged out just above the nest and as we had no rope we

had to leave the nest unexplored altho the female was sitting and we were sure that there was a set of eggs there.

We again visited this nest on March 28, 1906, and we were prepared this time. Pinger fired his gun and the male flushed when we were about fifty yards below the nest. Both hawks were rather quiet and did not swoop down at us much, but wreaked vengeance on some ravens and innocent turkey vultures that came too near the cliff. The nest cavity was forty-two feet below the bush to which the rope was tied. This cavity was about as large as a wash tub and faced toward the south. The three eggs were covered with mud, and it was evident that they had been quite wet. There was absolutely no attempt at nest building, the eggs being deposited on the damp sand. The embryos in the three eggs had begun to feather out so the eggs must have been laid about the middle of March. The eggs have an unusually light ground color and measure 1.99x1.53, 2.03x1.52 and 2.03x1.58. There were large numbers of valley quail and mourning doves in that immediate vicinity and we saw bunches of quail feathers near the duck hawk's nest.

On March 25, 1906, as we were strolling up the beach we heard a Pasadena thrasher singing, and looking around we discovered him perched on a small bush that grew right at the base of the cliff. It was raining at the time and we approached quite near the bird before he suspended his merry song and slipped off to disappear among some bushes close by. I was quite surprised to find this bird on the beach as I had considered it an inland bird and have never seen it so near the ocean before.

During our stay in 1905 we became interested in a flock of valley quail that came to roost every night in a small elder tree that grew within thirty feet of our camp. Each evening I recorded the time that the quail came to roost and found that during a period covering eight days, their time of going to roost did not vary more than ten minutes either way, from 6:15 o'clock.

On rainy or cloudy days they were seven or eight minutes early and on bright clear afternoons they were a little late but they were so regular in their habits that when they came to roost I knew it was 6:15 o'clock without looking at my watch.

In May 1904 we found Texas nighthawks abundant about the marsh in the early evening. They began to appear shortly after sundown and by the time darkness fell there were at least 300 birds diving down at each other or skimming swiftly over the water catching insects. Altho these birds were so abundant in the evening we never succeeded in flushing any during the daytime so I supposed that they must have come from some distance to this feeding ground.

The abundance of insect life about the marsh furnished the food supply for a large number of swallows. In March of both 1905 and 1906 we identified the barn, rough-winged, violet-green, cliff and white-bellied tree swallows, as well as the western martin. The rough-winged and barn swallows were not numerous and were evidently just transients on their way north during the spring migration. The other species were very numerous. The cliff swallows were building on the section house on March 30, 1906. A set of four fresh eggs of the white-bellied tree swallow was found in a woodpecker's hole in an elder bush on May 30, 1904.

A set of four fresh eggs of the western martin was found in a natural cavity of a sycamore on May 30, 1904. The nest was made of fine grass and a few bits of dry sycamore leaves. Another nest was found on March 27, 1905, that was nearing completion. This nest was about twelve feet up in a hole in a sycamore. This year, the last of March, we found six pairs of martins that were selecting nesting

sites. In one place there were a number of California woodpeckers' holes in a tall dead sycamore. Here we found three pairs of martins fluttering in and out of the woodpeckers' holes and if their ceaseless twittering was any expression of their feelings they must have been exceedingly well pleased with their new domiciles.

The following is a list of the land birds that were identified. The sea-birds, waders and ducks are not incorporated in this list because those that were identified were not particularly noteworthy and because the identification of several species was unsatisfactory.

*Lophortyx californicus vallicola*. Valley Quail. Very rare in 1904, but bred abundantly in 1905 and 1906, when the rainfall was copious.

*Zenaidura macroura*. Mourning Dove. Common, especially in 1906.

*Cathartes aura*. Turkey Vulture. Common everywhere all the time.

*Accipiter cooperi*. Cooper Hawk. Not common; two were seen during the last week in March, 1905.

*Buteo borealis calurus*. Western Red-tail. Was found breeding very commonly in 1905 and 1906.

*Buteo lineatus elegans*. Red-bellied Hawk. Several pairs seen and two nests located.

*Aquila chrysaetos*. Golden Eagle. A single individual was seen in March, 1905.

*Falco peregrinus anatum*. Duck Hawk. One pair found nesting on March 28, 1906.

*Falco sparverius*. American Sparrow Hawk. Breeds very commonly in the sycamores.

*Strix pratincola*. American Barn Owl. Common; two nests were found containing young in March, 1905.

*Scops asio bendirei*. California Screech Owl. Only three individuals were seen.

*Asio magellanicus pacificus*. Pacific Horned Owl. Rare in 1905, but four pairs were found breeding in 1906.

*Speotyto cunicularia hypogæa*. Burrowing Owl. Not common; only two pairs were seen.

*Geococcyx californianus*. Road-runner. Single individuals were seen on May 29, 1904, and on March 28, 1906.

*Dryobates nuttalli*. Nuttall Woodpecker. Very common in the elder bushes where they breed.

*Melanerpes formicivorus bairdi*. California Woodpecker. Not common; a few pairs bred in the sycamores.

*Colaptes cafer collaris*. Red-shafted Flicker. Common in the sycamores where they breed.

*Chordeiles acutipennis texensis*. Texas Nighthawk. Abundant about the marshes from May 27 to 30, 1904.

*Aeronautes melanoleucus*. White-throated Swift. Several pairs were seen near the duck hawks' nest in 1905 and 1906.

*Trochilus alexandri*. Black-chinned Hummingbird. Quite common in the sycamores May 27 to 30, 1904.

*Selasphorus rufus*. Rufous Hummingbird. A single male, evidently a migrant, was seen on March 31, 1905.

*Tyrannus verticalis*. Western Kingbird. Breeding commonly in the sycamores in May, 1904.

**Myiarchus cinerascens.** Ash-throated Flycatcher. Two pairs were seen the last of May, 1904.

**Sayornis nigricans.** Black Phoebe. A pair was building on the section house on March 25, 1906.

**Empidonax difficilis.** Western Flycatcher. A single specimen was secured on March 27, 1905.

**Otocoris alpestris actia.** California Horned Lark. Several pairs were seen on the mesa, May 29, 1904.

**Apelocoma californica.** California Jay. Rare; only three or four individuals were seen during the three trips.

**Corvus corax sinuatus.** American Raven. Common; breeds on the cliffs along the sea shore.

**Corvus brachyrhynchos hesperis.** California Crow. Common in the live oak groves where they breed.

**Agelaius phoeniceus neutralis.** San Diego Red-wing. Abundant in the salt marsh in May, 1904, and March, 1905.

**Sturnella neglecta.** Western Meadowlark. Only a few scattering individuals were found.

**Icterus bullocki** Bullock Oriole. Bred commonly in the sycamores in May, 1904.

**Euphagus cyanocephalus.** Brewer Blackbird. Bred commonly; a full-grown young one was found on May 28, 1904.

**Carpodacus mexicanus frontalis.** Linnet. Not at all common; breeds.

**Astragalinus tristis salicamans.** Willow Goldfinch. Common about the marsh in May, 1904.

**Astragalinus psaltria hesperophilus.** Green-backed Goldfinch. Also seen about the marsh in May, 1904.

**Passerculus sandwichensis alaudinus.** Western Savanna Sparrow. A single specimen was secured March 27, 1905.

**Chondestes grammacus strigatus.** Western Lark Sparrow. Several pairs were seen in the sage brush in March, 1905.

**Zonotrichia leucophrys gambeli.** Intermediate Sparrow. A few straggling individuals of this winter visitant were found March 27, 1905.

**Junco hyemalis thurberi.** Sierra Junco. A pair were noticed among the low bushes on a dark, damp, northern, oak-covered slope on March 27, 1905.

**Melospiza cinerea cooperi.** San Diego Song Sparrow. Common on the marsh; a nest was found containing three eggs on May 29, 1904.

**Melospiza lincolni.** Lincoln Sparrow. A single specimen was secured on March 26, 1902.

**Pipilo fuscus senicula.** Anthony Towhee. Quite common; a nest was found March 26, with three eggs in it.

**Zamelodia melanocephala.** Black-headed Grosbeak. A few individuals were seen May 29, 1904.

**Guiraca cærulea lazula.** Western Blue Grosbeak. One female was secured on May 29, 1904.

**Progne subis hesperia.** Western Martin. Common; found nesting on all three visits.

**Petrochelidon lunifrons.** Cliff Swallow. Common about the marsh.

**Hirundo erythrogaster.** Barn Swallow. Migrant; one was secured May 29, 1904, and another seen March 26, 1906.

**Iridoprocne bicolor.** Tree Swallow. Abundant; one nest was found in 1904.

**Tachycineta thalassina lepida.** Violet-green Swallow. Migrant; one of the most abundant birds in the locality, in March of both 1905 and 1906.

**Stelgidopteryx serripennis.** Rough-winged Swallow. Migrant; several were secured on March 30, 1905.

**Vireo gilvus swainsoni.** Western Warbling Vireo. Not common; one specimen was secured May 28, 1904.

**Helminthophila celata lutescens.** Lutescent Warbler. One migrant was secured March 26, 1905.

**Dendroica auduboni.** Audubon Warbler. A few stragglers were seen during March, 1905 and 1906; the majority had evidently departed.

**Geothlypis trichas scirpicola.** Tule Yellowthroat. Common in the tule patches.

**Mimus polyglottos leucopterus.** Western Mockingbird. Quite common among the "cholla" cactus where it breeds.

**Toxostoma redivivum pasadenense.** Pasadena Thrasher. One individual was seen on March 25, 1906.

**Heleodytes brunneicapillus couesi.** Cactus Wren. Several pairs were seen in the cactus where a set of eggs was found March 27, 1905.

**Troglodytes aedon parkmani.** Western House Wren. Common in the sycamores where several nests were located.

**Bæolophus inornatus.** Plain Titmouse. A single individual was secured March 28, 1906.

**Chamæa fasciata henshawi.** Pallid Wren-tit. One pair was seen in the brush on the hillside in March, 1905.

**Psaltriparus minimus.** California Bush-tit. One flock was encountered in some willows May 29, 1904.

**Sialia mexicana occidentalis.** Western Bluebird. A nest with large young was found May 30, 1905.

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### Notes on Birds Observed While Traveling From Yokohama to Manila

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I VENTURE to offer the readers of THE CONDOR the following notes made while traveling from Yokohama, Japan, to Hongkong, China, on the T. K. K. "America Maru," and from Hongkong to Manila on the steamer "Rubi." The point of particular interest is that while gulls were abundant at and between Yokohama and Hongkong none of them followed the ship to Manila. *Larus ridibundus* is the only gull known to occur regularly in Philippine waters; only one other, *Larus vegæ*, is recorded, and this from a single specimen taken near Manila. Sea birds of all kinds are extremely scarce in Philippine waters; thus but two Tubinares and eleven Laridæ are known from the Philippines against eleven Tubinares and twenty-one Laridæ from Japan. Similar proportions are found when all the water birds are considered. McGregor and Worcester enumerate but 101 water birds in their "Hand-List of Philippine Birds" (1906), while more than twice that number are given by Seebohm in "The Birds of the Japanese Empire" (1890).

Yokohama Bay, February 19.—During our stay here we had very fine clear