

ily in the same box. The other nest was situated in a knot-hole in a living aspen tree.

I am of the opinion that fledgelings were raised in but few of the one hundred and thirty nests exposed to snow and the Blue-fronted Jays; while most of the sixteen nests that were placed in cavities of trees, stumps, or rocks, escaped destruction of contents. The robins were seemingly unmolested by jays.

On leaving for Summit Station, July 9, I stopped for a few hours nest hunting along the state road at a distance of six to eight miles above Cisco and here I saw two Clarke Nutcrackers, one Hammond Flycatcher, three California Pine Grosbeaks, and a Sierra Hermit Thrush. All four are species of birds not observed at Cisco. I failed to discover the nests of any of them, however.

BIRDS OBSERVED IN THE SUMMER OF 1912 AMONG THE SANTA BARBARA ISLANDS

By HOWARD WRIGHT and G. K. SNYDER

WITH TWO PHOTOS BY THE AUTHOR

ON JULY 1st, 1912, Mr. J. R. Maclintock, W. S. Wright, Emerson Roche and the writers left San Pedro, on a fifty-foot sloop, for a short trip among the islands which lie off this portion of the California coast.

Our first stop was Santa Barbara Island, where we arrived early on the morning of July 2, after having been becalmed nearly all night. While approaching the island, we saw many flocks of Cassin Auklets, a fact which was hardly to be expected since Mr. George Willett found only a few pairs breeding here the year before.

When the rattle of the anchor chain broke the stillness, a great flock of gulls arose and came clamoring toward the boat. They were very tame and came almost to our hands to devour the scraps from our breakfast table.

The day was spent in looking about the island. We found the gulls breeding in four separate colonies, all of which contained young. A single set of two, which turned out to be addled, were the only eggs of this species found. On the northern slope of the island was a large colony of California Brown Pelicans. There were several hundred nests containing young in all stages of development. A single set of *three* addled eggs served to intensify the impression of general prosperity in the colony, which gave every indication of rapid increase in numbers.

On the northwestern promontory we noted an adult Bald Eagle accompanied by a full-grown youngster. They circled about screaming loudly but seemingly having little fear of the intruders. A careful search of this territory failed to reveal any Cassin Auklet's burrows, so we concluded that their nesting was still confined to the adjacent rock, where Mr. Willett found them in 1911.

On the northeastern point of the island a single egg of the Xantus Murrelet was found, at the end of a short burrow under a rock. No bird was on the nest and though the egg was apparently fresh it was cold when found.

The second day at this island was spent in visiting a large colony of Brandt Cormorants. It was located near the water's edge, on the northern side of the island opposite the detached rock which is about a hundred yards from shore.

There were about three hundred and fifty nests counted, all of which contained from one to five eggs, many of them on the verge of hatching.

Early on the morning of the fourth we hove anchor and set sail for Anacapa Island. On rounding the northeastern point of Santa Barbara Island, five Tufted Puffins were flushed from the water. They were quite wild and we could not get within gun-shot of them. They probably were breeding on the little island on the northern side, where we found several likely looking burrows the day before, but could not gain entrance to them.

We anchored at Anacapa on the afternoon of the fourth and spent the time until dark trying to rid our clothes of the moisture which they had absorbed on the latter part of the trip.

Next morning, the three younger members of the party rowed along the coast to look over the country and its bird population. Within a few minutes



Fig. 24. TYPICAL NESTS AND NESTING SITE OF BRANDT CORMORANT; PRINCE ISLAND, NEAR SAN MIGUEL ISLAND, JULY 12, 1912

three Black Oystercatchers had been laid low and these proved to be the only ones seen on this island. At the east end we saw great numbers of Tufted Puffins, cormorants, gulls and pelicans; so we found an accessible place to climb the cliffs and were soon at the top. A long and diligent search revealed a few puffin burrows occupied by young; but the egg season seemed past. One burrow produced a dead Xantus Murrelet and a rather ancient egg.

Baird Cormorants nested in inaccessible places and they apparently had young, though we did not actually get to see them. The pelicans, though present in great numbers, were not breeding. There were a considerable number of nests, all empty with the exception of a single fresh egg found in one of them.

On a high cliff near the east end, the fresh remains of a Socorro or Black Petrel were found. The bird had been eaten by some bird of prey or possibly a rat, and the feathers were scattered about considerably. No nest was located,

though we nearly leveled that portion of the island in our attempt. By this time the wind was kicking up quite a sea and we hastened to return to the shelter of the sloop.

Early the next morning we rowed toward the west end of the island, and near the water's edge found nesting caves of the Pigeon Guillemot, containing about half-grown young. We set sail about noon for Santa Cruz Island; and the next few days were spent in loafing about the beautiful little harbors that this island affords. Various trips into the canyons netted little of unusual interest, though the numerous resident land birds were much in evidence.

It was not until the far end of the island was reached that the "prize find" of the trip was made. We had stopped to explore the "Painted Cave" from a scenic point of view, but once there the great number of Pigeon Guillemots present invited search for their nests. One large sloping ledge, which seemed particularly good, was being explored by the aid of a lantern with the hope of finding a guillemot's egg unhatched. The way was dark and as the lantern was flashed about to find secure footing it fell on a small bird crouched on the open floor of the ledge. The bird, evidently blinded by the light, was easily captured and proved to be an Ashy Petrel brooding a well incubated egg. Thus encouraged, a most careful search was made with the result that four eggs and one small young, together with the adults, were taken. The "nests" were all entirely exposed, though one was in a shallow hole in the rocky side of the cave. This in light of their usual breeding habits seems strange, because numerous fragments of rock which had fallen on the ledge afforded hiding places, and were utilized for this purpose by the Guillemots. A single addled Guillemot's egg was an incident of the search, while the young in all stages were quite numerous.

We went from the Painted Cave, on Santa Cruz, to Santa Rosa where we anchored over night. This island did not seem very promising and early in the morning of the next day, under double-reefed mainsail, we left for San Miguel, the most northerly and least often visited island of this group. After a long, weary day of sailing and salt water shower-bath combined, we anchored in the bay at about sundown.

This island, which is about six miles long and four miles wide, is nothing but a vast field of continually shifting sand. The wind never ceases and a "calm" day there would be a storm most any where else. The bay is fairly well protected, as it opens toward the east, but even here the sand laden wind howls unceasingly. The one redeeming feature of this place is Prince Island, a small rocky island in the mouth of the bay. This big rock or little island, which is quite high and steep, is literally alive with breeding birds at this season of the year.

To this place we rowed on the morning of the 12th, and found an easy landing place for our skiff. Here in suitable places we found great numbers of breeding birds such as the California Murre, Tufted Puffin, Brandt Cormorant, and Cassin Auklet. A rising sea warned us that we must hasten back to the sloop while we could safely do so.

The next day we set sail on the return trip deeply regretting that we could not have explored Prince Island more fully.

The following is a list of birds observed upon the trip, together with brief comments on each:

Lunda cirrhata. Tufted Puffin. Probable breeding burrows found on the rock on northeast end of Santa Barbara Island. Five birds seen in this vicinity next day (July 3-4). The birds were quite numerous on the east end of Ana-

capa, but very few of their burrows were accessible. Those examined contained either young or egg-shells (July 5). Several birds noted flying about the west end of Santa Cruz (July 10). On Prince Island the largest colony was found. Numerous burrows examined contained young from a few days to several weeks old. The birds when disturbed circled over the water and returned to their burrows only to repeat the performance (July 12).

Ptychoramphus aleuticus. Cassin Auklet. A number of these birds seen as we approached Santa Barbara and one was taken. A thorough search of the northwest end of Santa Barbara netted nothing but the wings of those birds whose bodies had been eaten, probably by cats (July 2-3). On Prince Island a very large colony nested on the northwest and north slopes, where there was ground in which it was possible for them to burrow. In many places the ground was so undermined by the nesting places of these birds as to render walking difficult. At this season of the year the eggs had all hatched, as all the burrows examined contained good sized young (July 12).

Brachyramphus hypoleucus. Xantus Murrelet. One egg of this bird taken from a hole on the northeast point of Santa Barbara Island, and several wings found (July 3). On Anacapa, three dried-up remains, one whole egg and numerous shells testified to the breeding of this bird on the island during this or some previous season. No live birds were noted (July 5).

Cephus columba. Pigeon Guillemot. These birds were seen carrying some material into inaccessible caves on the northern part of Santa Barbara Island, indicating that they had young (July 3). On Anacapa a pair were noted near the east end of the island. On the west end three nesting caves were found each containing a single well-grown youngster (July 5-6). These birds were breeding in considerable numbers at the Painted Caves on Santa Cruz (July 10). Numbers seen entering low caves on Prince Island (July 12).

Uria troille californica. California Murre. At Prince Island there were several small colonies of these birds on the high overhanging ledges. The odor, filth and continual pig-like, grunting noises emitted by the numerous young made close inspection of these ledges quite an unpleasant task (July 12). Several eggs were collected, however, and they proved to be addled. One egg, in fact, which had been dug from the accumulations of guano, turned out to be an over-ripe specimen which tested the collector's stomach during the blowing operation.

Larus occidentalis. Western Gull. The first night out, while becalmed in a heavy fog some ten miles from Santa Barbara Island, these birds were seen passing the boat, all flying unerringly in a southwesterly direction toward the island (July 1). The young of this species on Santa Barbara were pretty well grown and proved very agile when pursued. They had a very amusing habit of "playing ostrich" by tucking their heads under a thick weed and closing their eyes, leaving their downy bodies entirely exposed (July 2-3). Colonies containing young were also found on Anacapa (July 5) and on Prince Island (July 12).

Larus heermanni. Heermann Gull. A number of these birds were seen near Santa Cruz Island (July 6).

Puffinus creatopus. Pink-footed Shearwater. Seen in the channel between Santa Barbara and Anacapa islands (July 4).

Puffinus griseus. Sooty Shearwater. Seen in company with the preceding species.

Oceanodroma homochroa. Ashy Petrel. Found breeding at the "Painted Caves" on Santa Cruz Island (July 10).

Oceanodroma, sp. ? The remains of a Socorro or Black Petrel were found on Anacapa Island (July 5).

Phalacrocorax auritus albociliatus. Farallon Cormorant. The main colony of these birds on Santa Barbara was on the high bluff on the northwest part of the island. These nests, together with those of the pelicans, were built among the stalks of a kind of "marguerite" which grows abundantly at this point. The cormorant nests were built entirely of weed stalks and twigs which readily distinguished them from those of the following species, which were entirely of seaweed. The nests contained from one to four eggs or young (July 2). On Anacapa a few pairs had just finished nests on the cliffsides. These showed the same distinguishing materials used in construction.

Phalacrocorax penicillatus. Brandt Cormorant. A large colony nested on a low exposed ledge on the northwestern side of Santa Barbara Island. There were about 350 nests containing from one to five eggs or newly hatched young.



Fig. 25. YOUNG CALIFORNIA BROWN PELICANS ON SANTA BARBARA ISLAND, JULY 2, 1912

This colony had evidently been used for some years as the nests were very close together and well cemented with guano. The birds were very much more wild than the preceding species. On the rock before referred to, about a hundred yards away, was a fair-sized colony in which all the nests contained nearly full-grown young. On our approach they took to the water where their awkward attempts to dive resulted in nothing more than the immersion of their heads (July 3). On Anacapa a few pairs nested on the cliffs, over the entrances to caves mostly (July 5). Prince Island supported another colony of these birds. The nests contained from one to five eggs (July 12).

Phalacrocorax pelagicus resplendens. Baird Cormorant. Several small colonies of these birds nested above the entrances to caves on the west end of Anacapa Island. The birds were extremely shy (July 6).

Pelecanus californicus. California Brown Pelican. On Santa Barbara Island,

between three and four hundred birds were breeding in company with Farallon Cormorants. All nests contained young still in the downy stage (July 2). On Anacapa were a large number of birds which apparently were not breeding (July 5). These birds were very numerous about Prince Island, but we did not see any breeding places as we visited only the west end of the island (July 12).

Ardea herodias. Great Blue Heron. A single bird seen on Anacapa July 5, and one on Santa Cruz July 7.

Arenaria interpres morinella. Ruddy Turnstone. One seen at close range near Pelican Harbor, on Santa Cruz, and positively identified (July 8).

Haematopus bachmani. Black Oystercatcher. Three taken on Anacapa July 3, and one taken and others seen on Prince Island July 12. They were easily approached.

Zenaidura macroura marginella. Western Mourning Dove. Fairly common in the canyons of Santa Cruz Island. A nest found in a small tree about seven feet from the ground contained one egg on July 7.

Haliaeetus leucocephalus leucocephalus. Bald Eagle. One adult and a young one seen on Santa Barbara Island (July 3). One seen on a high cliff at Santa Cruz on July 7.

Falco peregrinus anatum. Duck Hawk. One seen on Anacapa (July 3), and two on Prince Island (July 12). They were very wild.

Falco sparverius. Sparrow Hawk. One seen in the canyon back of Pelican Harbor on Santa Cruz (July 7).

Colaptes cafer collaris. Red-shafted Flicker. Abundant among the pines on Santa Cruz.

Sayornis nigricans. Black Phoebe. Seen in the canyons on Santa Cruz.

Empidonax difficilis difficilis. Western Flycatcher. Found breeding abundantly on Santa Cruz. One nest was in a cave the floor of which was wet by the high tides. Two eggs of this species were found laid on the bare rock in a hole in a large boulder.

Otocoris alpestris insularis. Island Horned Lark. Found on Santa Barbara Island.

Aphelocoma insularis. Santa Cruz Island Jay. This species was very common in the wooded districts of Santa Cruz. Two full-grown immatures were taken (July 7).

Corvus corax sinuatus. Western Raven. These birds were common in the canyons on Santa Cruz Island. Their nests were found in crevices in the cliffs overlooking the water. These were of course unoccupied at this season of the year. An old nest undoubtedly of this species was found on a ledge scooped out of the walls in one of the sandy canyons of Santa Rosa Island.

Sturnella neglecta. Western Meadowlark. This bird's notes were heard many times while we were on Santa Cruz, and one morning a bird flew across Pelican Harbor. Noted also on Santa Rosa Island (July 10).

Carpodacus mexicanus clementis. San Clemente House Finch. Seen on all the islands visited.

Melospiza melodia graminea. Santa Barbara Song Sparrow. Found on Santa Barbara Island wherever brush afforded protection. Young were found, but no occupied nests.

Pipilo maculatus clementae. San Clemente Towhee. Adults and good-sized young were seen on Santa Cruz Island.

Hirundo erythrogastra. Barn Swallow. Birds seen entering caves on Santa Barbara Island. On Santa Cruz a nest containing young was discovered on a

cliff overhanging the ocean. A nest was found on Anacapa which contained a single addled egg.

Vermivora celata sordida. Dusky Warbler. Very abundant in the wooded parts of Santa Cruz Island.

Salpinctes obsoletus obsoletus. Rock Wren. Adults and full-grown young seen on the rocky slopes of Santa Barbara. Also noted on Anacapa.

Thryomanes bewicki nesophilus. Santa Cruz Island Wren. Common among the fallen pines on Santa Cruz. Young just able to fly were seen. One nest, containing four eggs on the point of hatching, was found in a hole in the canyon wall, about seven feet up, made of sticks and feathers.

Psaltriparus minimus californicus. California Bushtit. One flock seen in the brush on Santa Cruz Island on July 7.

FROM FIELD AND STUDY

Late Fall Occurrence of the Black-headed Grosbeak.—On November 23, 1912, I took a specimen of the Black-headed Grosbeak (*Zamelodia melanocephala*) at Riverside, California. The occurrence is of interest on account of the date, which is so far from the ordinary movement of this species in California, as well as from the fact that the bird is in full autumnal plumage.

So far as I have been able to learn, with the courteous assistance of Mr. J. Grinnell, there is no published account of the bird's having been taken in the United States otherwise than in the breeding or in the first juvenal plumage. The specimen at hand is not in either of these plumages, and appears fresh and unworn. Beebe in "Two Bird Lovers in Mexico" speaks of the grosbeaks in their dull winter plumage looking like large sparrows; but so far as I can learn, the fall plumage is not familiar to many CONDOR readers. The specimen was a female with well developed ovaries, which would suggest that the bird had passed one breeding season and might be considered an adult. Mr. Grinnell offers the suggestion that in this species first-year individuals may perhaps be subject to a period of autumnal sexual activity, as is probably the case with certain of the resident species of the southern part of the state. The female in hand may thus be a bird of the year. It seems now impossible to state with certainty that the bird is either adult or juvenal.

The plumage is notable for the rich tan suffusion of the breast, the obscuring of white spots by buffy feather tips, the fact that spots have not been lost by sloughing off of barbs such as occurs in worn plumages of the species, and that the upper tail-coverts bear indistinct transverse bars.

The specimen has been deposited in the Museum of Vertebrate Zoology of the University of California and may be referred to as no. 23431 of the collection of that institution.—LOYE MILLER.

The Results of Some Miscellaneous Stomach Examinations.—The following notes on the results of stomach examinations of several different species of birds should be of interest. The stomach contents does not represent in all cases the usual kinds of food taken by the species. The greater interest generally attaches to the unusual. It is important that both the usual and the unusual articles of diet be known.

Porzana noveboracensis. Yellow Rail. Rincon Valley, Sonoma County, California, November 17, 1912. Stomach contained 18 clover seeds (*Trifolium sp.*) and grass.

Archibuteo ferrugineus. Ferruginous Rough-leg. Cotati, Sonoma County, California, November 25, 1912. Stomach contained seven meadow mice (*Microtus californicus*). This appears to be the first definite record of a Ferruginous Rough-leg taken within the state for a number of years.

Bubo virginianus pacificus. Pacific Horned Owl. Berkeley Hills, Berkeley, California, December 15, 1912. Stomach contained two meadow mice (*Microtus californicus*) and 27 Jerusalem crickets (*Stenopelmatus sp.*).

Geococcyx californianus. Roadrunner. San Diego, San Diego County, California, September, 1912. Stomach contained a large horned toad (*Phrynosoma blainvilliei blainvilliei*).

Chordeiles virginianus hesperis. Pacific Nighthawk. Dutch Flat, Placer County, California, August 22, 1912. Stomach contained 1 wood-boring beetle (*Elaphidion sp.*), 17 wood-boring beetles (*Criocephalus agrestis*), 3 click-beetles (Elaterridae), 3 curculios (*Balaninus sp.*), 3 metallic wood-boring beetles (*Melanophila sp.*), 1 grasshopper, 16 moths, 3