

THE BIRDS OF THE TODOS SANTOS ISLANDS

By JOHN VAN DENBURGH

LA BAHIA de Todos Santos, or All Saints' Bay, on which is situated Ensenada, the principal port of the northern district of Lower California, is a moderately well sheltered harbor. Its northern shores are guarded by high rocky hills along the base of which runs the road from Tijuana. South of the city of Ensenada the surf breaks half-heartedly on a beautiful half-moon beach of white sand backed by low dunes. To the southwest the particolored rocks of Punta Banda rise and stretch out toward the north as though trying to reach and reclaim two little islets which guard the western side of the bay—Las Islas de Todos Santos.

Some three miles of water intervene between Punta Banda and the southernmost of these islets, but a long series of projecting and submerged rocks indicates their former union. The smaller, northern islet lies but a fraction of a mile from the larger one, its separation evidently having been effected by the ceaseless pounding of the waves.

These islands had been visited before by naturalists interested in their birds and mammals, but nothing was known regarding reptile life upon them. We, therefore, felt that they were well worthy of investigation, and planned to spend several days there. In San Diego, Mr. A. W. Anthony accepted our invitation to accompany Mr. Slevin and myself. A few hours' automobile ride took us to Ensenada, where we hired a boat and purchased provisions and water.

Our boatman, Chris, was a genuine salt, a deep-sea sailor of the old school, but not old in years, rugged, powerful, willing, good-natured, competent, and trustworthy in spite of an all-consuming thirst. By three o'clock in the afternoon he had transferred us and all our belongings from the pier at Ensenada to his trim gasoline sloop. A few minutes later he started the engine, and we chugged off for the twelve mile run across the bay.

The blue water was but slightly disturbed by the afternoon breeze. The air was clear and warm. The islets, distinct but tinted by a faint blue-gray veil, gradually gained height as we drew nearer. The one Heermann Gull, which had followed us across the bay, departed. A few Dark-bodied Shearwaters flew rapidly by. As we approached the islands birds grew more numerous. Hundreds of Western Gulls, Farallon and Brandt cormorants and Brown Pelicans, separately and in great mixed flocks, wheeled and swam and dove in pursuit of schools of small fish. Sometimes they sought them in the open blue waters, sometimes where the kelp-beds shone in the sun like burnished gold, sometimes languidly when the school swam deeper, or again with excitement and strenuous charges as the fishes, perhaps driven from below by other enemies, ruffled large areas of the surface with their fins.

South Todos Santos Island is about one and a quarter miles long by half a mile wide. The rocky hills near its southern end rise three hundred feet, or more, above the sea. Its shores are precipitous, sheer cliffs rising from the water or from narrow rocky beaches in little coves. The best landing place is in a small, sheltered cove near the southeast end of the island. Here several Japanese fishermen greeted us and helped Chris carry our possessions up to the spot we selected for our camp. This done, Chris sailed away, leaving behind him a skiff for our use. We pitched our tent, stowed our provisions, arranged our beds, cooked and ate our evening meal, set some traps, and were ready for a night's sleep.

With darkness came a host of mice, springing the traps almost as fast as they could be reset. A dozen were caught in a few minutes, and through the rest of the night mice ran over us and our belongings. The native wood-rats of the island are more retiring. We found them only near their homes of piled sticks. These they often erect upon a thick foundation built of stones an inch or two in diameter. These rats (*Neotoma anthonyi*) and mice (*Peromyscus maniculatus dubius*) are the only native land mammals of the islands. Cats have been introduced and probably will soon exterminate the native mammals, reptiles and smaller birds. Snails, centipedes, scorpions, spiders, ants, beetles and various other insects are numerous. We saw no fleas. Of reptiles, we found six species, two snakes and four lizards.

Observations on the birds of the Todos Santos Islands have been published by H. B. Kaeding (*Nidologist*, iv, no. 9, 1897, p. 109; *Condor*, vii, 1905, p. 105), A. B. Howell (*Condor*, xiv, 1912, p. 187), G. Willett (*Condor*, xv, 1913, p. 19), and E. W. Nelson (*Mem. Nat. Acad. Sci.*, xvi, 1921, p. 85). The following list includes the species observed by them as well as those which we found, a total of 54. Unless otherwise stated, our notes refer to South Island, on which we camped from May 24 to May 30, 1923. We spent several hours on North Island, May 27.

Ptychoramphus aleuticus. Cassin Auklet. This species was not seen by us although Kaeding reported it in 1897 and Willett found it breeding in small numbers, April 25, 1912.

Brachyramphus hypoleucus. Xantus Murrelet. Kaeding found this murrelet fairly common. We heard its notes at night as it flew past our camp. No living birds were seen, but the white-lined wings and neatly turned skins of several eaten by cats were found on various parts of South Island. I found one broken egg shell in the middle of a large field of iceplant, near the north end of this island, more than a hundred feet from any holes or rocks or bushes. One dead bird was discovered on the ground under a low bush of very dense, spiny growth where it probably had intended to nest.

Larus glaucescens. Glaucous-winged Gull. We saw a single gull of this species flying with the hundreds of Western Gulls over the north island, May 27.

Larus occidentalis. Western Gull. This bird ranked first in point of numbers. Many nests were found on the northern half of each island. Most of the nests were in scattered colonies, but a few seemed to have no near neighbors. All that I saw were slight hollows in the ground lined with grass and often a few feathers. A few were well hidden under bushes, but most were either entirely unsheltered or were placed a foot or two from some bush or boulder. The gulls in certain colonies had not yet laid but were found sitting on empty nests. In other colonies, a few empty nests and a few nests with newly-hatched young were found among the many containing two or, usually, three eggs. The sets, both of two and three eggs, varied in incubation from fresh to far advanced. Few of the eggs varied much from the usual types of coloration, but one set containing a bluish-gray egg with few markings was found, and on May 27 a beautiful set of three fresh eggs was secured in which the browns of other eggs are replaced with red and pink, as sometimes happens in the eggs of jays and crows. I never saw a gull destroy an egg of its own species, but no unguarded nest of a cormorant was safe from attack and I saw them eat pelicans' eggs also. This they usually did by breaking the eggs in the nest, but one gull attempted to fly off with an unbroken egg of this species. The large egg quickly slipped from the gull's bill and rolled down the hill with the gull ludicrously following and picking it up only to lose it again and again. More gulls were nesting on the northern than on the southern island.

Larus californicus. California Gull. This gull, recorded by Kaeding, was not seen by us.

Larus heermanni. Heermann Gull. At the time of Kaeding's visit (March 10, 1897) this species was common. Howell (April 15 to 20, 1910) saw a few. Willett (April 25, 1912) observed one. A single bird, which followed us from Ensenada nearly to the islands, afforded our only record.

Sterna maxima. Royal Tern. This bird was not seen by us. It has been recorded by Howell and Willett.

Puffinus griseus. Dark-bodied Shearwater. A few individuals of this species flew past us as we drew near the island on our trip out from Ensenada, and again when we were leaving on the return trip.

Phalacrocorax auritus albociliatus. Farallon Cormorant. This species was not greatly outnumbered by the gulls. The largest nesting colony was near the northern end of the southern island. The nests, always composed largely of sticks and twigs, were built on low bushes and rocks from fifty to a hundred yards back from the shore. A few rested directly on the ground of the hillsides. Slopes were chosen in preference to more level areas. Many built in or near the colony of brown pelican nests. Western Gulls nested on the flat below. Many of the nests of the cormorant were decorated with long, black quill-feathers, often stuck nearly upright near the rim of the nest. In and near the pelican colony most of the cormorant nests held recently-hatched, naked, black young. Elsewhere only eggs or empty nests were found. Full sets contained often three, usually four, rarely five eggs. Many of the eggs were fresh, but most were somewhat advanced in incubation. No nests were found along the eastern side of the south island, but a few birds sitting on empty nests were seen near the southwestern point of this island. A small colony was found near the northern end of the northern island, where the nests were built upon bushes and cactus. A few contained eggs, but nearly all had been robbed by the gulls. The cormorant seems to be the Chinaman of the bird world. The gulls and the ravens delight in attacking his home and family, and he never actively opposes them. Twice I saw two ravens frighten cormorants from their nests and then make off with an egg apiece. The gulls are not so aggressive. They wait until the cormorants leave their nests. Then the gulls alight on the nests and eat or carry off the eggs or young. If the parent bird returns, the gull leaves from one side of the nest as the cormorant alights on the other. There is never any show of animosity.

Phalacrocorax penicillatus. Brandt Cormorant. This bird was less numerous than the Farallon Cormorant. Three colonies were found, two on South Island and one on the northeastern side of North Island. All were close to the edge of the sea-cliffs. In the colony on the north shore of South Island the sea-weed nests all held large young. The birds of the east-side colony on this island were just locating their nesting sites. Those on North Island had eggs and young of various ages.

Pelecanus californicus. California Brown Pelican. A group of nests was found near the northern end of each island. The nests on the northern island were much fewer, only fifteen or twenty, as against perhaps ten times this number in the southern colony. Some of the nests contained young, but most held three eggs. A few of the eggs were fresh. Late one afternoon, after the pelicans had given an exhibition of high diving, a dozen or more of them began to circle higher and higher until they looked like hawks soaring in the sky, all revolving in the same direction at different heights. After a time, one reversed the direction of its flight. In a few moments all had reversed their circles. For some minutes more they soared, then one flapped its wings and started north, toward their nesting grounds, and the others lined up behind it.

Phalaropus fulicarius. Red Phalarope. Willett records one bird seen April 25, 1912.

Heteractitis incanus. Wandering Tattler. Kaeding saw this species along the beaches, March 10, 1897. Howell reported lone birds rather common during his visit, April 15 to 20, 1910.

Arenaria melanocephala. Black Turnstone. Kaeding (see Taylor, Nidologist, IV, 1897, p. 109) and Howell both found this turnstone.

Haematopus frazari. Frazar Oystercatcher. Kaeding and Howell both found this bird. Howell states that it was rather common and found usually with the Black Oystercatcher in small flocks of from two to six individuals.

Haematopus bachmani. Black Oystercatcher. We found a few pairs on South Island. On May 30 I found an excited pair near the northern end of this island. Search finally revealed a few empty mussel and limpet shells on the rocks above the sea, and nearby were two handsomely colored young oystercatchers perhaps a day or two old. The two differed somewhat in color and one was noticeably larger than the other. I could not find a third.

Zenaidura macroura marginella. Western Mourning Dove. One was seen May 29.

Buteo borealis calurus. Western Red-tailed Hawk. One was found by Kaeding, March 10, 1897.

Haliaeetus leucocephalus leucocephalus. Southern Bald Eagle. This eagle has been recorded by Kaeding, Howell and Nelson. We saw none. Howell mentions a nest part way up an overhanging cliff, and Nelson says a nest was found on the top of a rocky pinnacle just off the northern end of South Island.

Falco peregrinus anatum. Duck Hawk. Howell found the nest of a pair, April 16, 1910, on a "sugar loaf" three hundred feet above the sea, and took four badly incubated eggs. I saw nothing of this species until late in the afternoon of May 29, when one flew over my head and lit on a tall rock near the center of the South Island. The noise of my collecting pistol frightened it and it flew out over the bay toward Ensenada until I could just distinguish it. It then turned back and flew rapidly to North Island.

Falco sparverius phalaena. Desert Sparrow Hawk. Kaeding found this hawk March 20, 1897, but it has not been reported by subsequent observers. During our visit two pairs were constantly present near our camp on South Island, and I believe that at least one of these pairs was nesting in a hole in a cliff. They frequently were seen in pursuit of the ravens and were very noisy.

Pandion haliaetus carolinensis. American Osprey. We saw no ospreys. Kaeding took a set of eggs on March 10, 1897, and Howell, in April, 1910, found one pair in possession of one of five old nests, but no eggs had as yet been deposited.

Aluco pratincola. American Barn Owl. Kaeding saw a few on March 10, 1897. Howell found a nest in a deep cleft of the rocks twenty feet above the sea, which, on April 16, 1910, contained a single nestling two-thirds grown. We saw no owls.

Speotyto cunicularia hypogaea. Burrowing Owl. The only record is Kaeding's of March 10, 1897.

Colaptes cafer collaris. Red-shafted Flicker. Kaeding and Howell each saw one.

Phalaenoptilus nuttalli californicus. Dusky Poorwill. A single bird was recorded by Howell.

Aeronautes melanoleucus. White-throated Swift. Howell, Willett and I each observed several.

Calypte costae. Costa Hummingbird. Hummingbirds were numerous and two nests containing young were found in small bushes. Two or three adults which we shot were of this species, which already has been recorded by Kaeding and Willett.

Calypte anna. Anna Hummingbird. This species was found by Kaeding and Howell.

Selasphorus rufus. Rufous Hummingbird. One seen by Howell is the only basis for recording this species.

Tyrannus verticalis. Western Kingbird. This species was noted by Kaeding and two pairs were observed by Howell. We saw none.

Myiarchus cinerascens cinerascens. Ash-throated Flycatcher. One was seen by me on May 25 and later collected by Mr. Anthony.

Sayornis nigricans. Black Phoebe. We did not see this species. Kaeding and Howell each recorded a pair.

Myiochanes richardsoni richardsoni. Western Wood Pewee. Howell saw one bird of this species. We found a pair in a sheltered situation near the center of the southern island, where the tallest bushes grow.

Corvus corax sinuatus. Western Raven. One or more of these birds could be seen at almost any time near our camp. They frequently flew to the high cliff at the southern end of the island. One morning I counted nine in sight at one time. I saw two at the northern end of South Island stealing cormorant eggs.

Sturnella neglecta. Western Meadowlark. This bird has not been noted on the Todos Santos Islands since Kaeding saw a few there March 10, 1897.

Carpodacus mexicanus clementis. San Clemente House Finch. House finches are common on both islands. On South Island many full-grown young were seen and many old nests were found in cactus. On May 30, I took a set of three slightly incubated eggs. House finches were recorded by Kaeding, Howell and Willett. It would seem improbable that the bird found here is really the same as that on San Clemente Island.

Astragalinus psaltria hesperophilus. Green-backed Goldfinch. We did not see this species although Willett found it fairly common, April 25, 1912.

Passerculus sandwichensis alaudinus. Western Savannah Sparrow. Kaeding noted a small flock, March 10, 1897.

Passerculus beldingi. Belding Marsh Sparrow. Kaeding found this species breeding, with fresh eggs March 10, 1897. We found young and old birds very common. After long search, I found two nests. One, on the ground, held two half-grown young and one infertile egg. The other, about fourteen inches up in a small bush, had been visited by mice and contained neither eggs nor young.

Passerculus rostratus rostratus. Large-billed Marsh Sparrow. Howell reports seeing one or two.

Zonotrichia leucophrys gambeli. Intermediate Sparrow. This sparrow was found to be common in March and April, by Kaeding, Howell and Willett.

Aimophila ruficeps, subspecies? Rufous-crowned Sparrow. The rufous-crowned sparrow has been recorded only by Kaeding. We found it common on South Island and noted it also on North Island. Many were seen on the southern island feeding young which had left their nests but recently. On May 26 a bird flew up from my feet. Search revealed a nest built of dry grass in a slight depression in the ground under a bunch of dry grass. It contained four eggs in which incubation was moderately advanced.

Melospiza melodia, subspecies? Song Sparrow. One specimen secured by Howell was destroyed by rats before its subspecific identity was determined.

Pipilo crissalis senicula. Anthony Brown Towhee. We did not see this towhee, which has been recorded only by Kaeding.

Passerina amoena. Lazuli Bunting. One was seen by Willett, April 25, 1912.

Hirundo erythrogaster. Barn Swallow. Howell noted a colony near some caves along the shore, probably at the same point, on the southeastern part of South Island, where we saw a few pairs.

Vermivora celata sordida. Dusky Warbler. This is a common breeding bird on South Island, where many were seen feeding young. Two empty nests were found in bunches of lichen two or three feet up in small bushes. Kaeding's record of *V. celata lutescens* may relate to this subspecies. Howell secured a set of four fresh eggs.

Dendroica auduboni auduboni. Audubon Warbler. Kaeding notes that several were seen March 10, 1897.

Salpinctes obsoletus obsoletus. Rock Wren. Howell reported two nesting pairs. We saw the bird only once, near the center of the island.

Catherpes mexicanus punctulatus. Dotted Canyon Wren. Kaeding heard several singing on March 10.

Hylocichla guttata nanus. Dwarf Hermit Thrush. Kaeding reported this bird not uncommon, March 10, 1897.

Planesticus migratorius propinquus. Western Robin. Recorded by Kaeding as common, March 10, 1897.

Sialia mexicana occidentalis. Western Bluebird. Howell noted a pair, April 19, 1910.

San Francisco, September 18, 1923.