## COLLECTING IN THE COLORADO DESERT.

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The Colorado Desert takes its name from the Colorado River, which bounds it on the east. It includes a vast section of southeastern California and extends into Mexico.

Its central portion is a great basin, or depression, almost 300 feet below the level of the ocean, with extensive beds of salt, hot springs, a blinding reflection of the sun from fields of alkali and a daily mirage.

Other sections are barren hills of volcanic rock, destitute of water; mountains and valleys of drifting sand and where the wind blows through the passes in the hills, it fills the air, cutting the face like a knife and making it almost impossible to travel at all. Many sections are entirely destitute of vegitation, while other parts have a scant growth of grease-wood, mesquite, palo verde, cactus and dwarfed bushes.

To the northeast, rise the mountains of San Bernardino and Grayback, some 13,000 feet high and crowned with perpetual snow, while to the southwest, San Jacinto looms up in the clear air to a height of 11,000 feet and is also enveloped in snowy beauty nearly all the year.

Cool streams of water from these mountains flow into the desert, soon loosing themselves in the sands.

Around the mountain bases and among the foothills there is more vegitation, and bird life becomes more abundant than one would suppose. In some of the mountain canons are extensive groves of fan palms, whose smooth symetrical trunks and leafy tops, rise to a height of 70 to 90 feet, making a home for many birds.

I have crossed this desert six times and made two extra journeys into it, collecting many of its birds, but have not been there enough to find them all.

A characteristic bird of the most barren and desolate part of the desert, is the American or White-necked Raven, which abounds through the Winter season. They seem to be in pairs, walking about over the alkaline plains, though what they are there for, or what they find to eat, is to me a mystery.

In the northwestern part of this region, where the Winter rains

start a new growth of wild flowers and grasses, great flocks of Sand Hill Cranes feed daily and then fly away towards the ocean. Thousands of the Snow Goose, White-fronted Goose, White-cheeked Goose and Cackling Goose, also feed in the same localities on the borders of this desert. The flocks usually come before daylight and return about 10 o'clock, to San Jacinto and Elsinore Lakes, which are over the hills to the southwest. Egrets and Great Blue Herons are also often seen.

Of small birds the Black-throated Sparrows are very abundant wherever they find a few bushes and I saw young birds able to fly and also found fresh eggs from April 20th to 30th of last Spring.

Yellow-headed Tits were rather common and I found several of their cocoanut-shaped nests. Costa's, Anna's, Rufus and Black-chinned Hummingbirds were numerous and while part of the nests held eggs, others had full grown young.

The Western Red-tail, Swainson's, Sparrow and Ferruginous Rough-leg Hawks were seen, as were also Short-eared, Barn and some species of Pigmy Owl, but could not find their eggs.

Among the palms in the canons, Bullock's and Arizona Hooded Orioles were nesting in numbers and eggs and skins of the House Finch, Western Tanager and both Lawrence's and Arkansas Goldfinch were secured. Gambels Quail were by no means scarce and those taken were of a paler type than my Arizona specimens. Up towards the pines, or San Jacinto, Mountain Quail and California Jays are abundant. Where the mountain streams flow onto the plain, near Palm Springs, I found a large flock of Yellow-headed Blackbirds, with a few Brewer's Blackbirds keeping them company.

Here also were Coots, several White-faced Glossy Ibis, a pair of Cinnamon Teal and some Sora Rail. The Indian boys brought me several of the last that they had killed with arrows.

Warblers of several species were taken, including the western representative of our Yellow Warbler. Black-crested and Ashthroated Flycatchers were seen every day, with an occasional Western Lark Finch and California Bluebird.

I also found many nests of the Cactus Wren, which abounds wherever certain species of cactus grows. Blue-headed Gnat-

catchers were rather common, though I only found one nest with five fresh eggs. Blue-grey Gnatcatchers were also nesting. Black-headed and Western Blue Grosbeaks, as well as Lazuli Buntings were added to my collection.

Among the palms I shot several Nuttall's Woodpeckers, but failed to secure their eggs. Texan Nighthawks seem to find this a congenial home and I saw Killdeer Plover several miles from the nearest water. I shot one Crissal Thrasher and saw one California Vulture, sailing along the base of San Jacinto.

To procure specimens of two species of birds, with their eggs, was a great inducement to me, to visit this region of sand and desolation. They were the Poorwill and Leconte's Thrasher. The former I could hear every evening and they seemed numerous, but the eggs, or even the birds, by daylight, are difficult to find. I have spent days looking among the cactus and stunted bushes, or on the rocky hillsides, with the thermometer ranging from 90 to 110 in the shade and with all the Indian help I could get and only succeeded in finding three sets of two eggs each and one pair of very young birds.

They seem to lay almost anywhere, in the slightest hollows—without nests—and are very close setters, so that it is very difficult to flush the birds. My experience leads me to the belief that the egg will be very rare for a long time and who ever looks for them where I have, will find two rattlesnakes to one egg.

Nests of the Leconte's Thrasher are not hard to find, if one gets where the birds are, as they are bulky and not very well concealed, though in the thorny mesquite, it is often all one can do to get at them. I took several sets last Spring and some on a former visit to the same section. These sets were of two, three and four eggs. I think three may be the most common number and that full sets of two occur as often as those of four.

I have found them from three to eight feet above the ground in mesquite, cactus, palo verde and other small trees and bushes.

These are some of the common birds of the desert country, but no doubt, many rare ones may be found. Collecting there has its hardships as well as pleasures. It is extremely hot and dusty; a dazzling, blinding glare to the sunlight as reflected from sand, rock or alkali; scarcity of water in most places; sand

storms that are worse than a Dakota blizzard, with a soil into which you are sinking ankle deep at every step, or scrambling over jagged, volcanic rocks. These are a few, but not all of its discomforts.

## MARSH COLLECTING IN THE VICINITY OF OSWEGO, NEW YORK.

Danbury, Conn., Feb. 4, 1891

During the past season, 1890, I have confined myself almost exclusively to marsh collecting and although it was hard and tiresome work, the results were very gratifying indeed.

About five miles from Oswego, N. Y., is a level swamp meadow, containing 100 acres or more, grown over with tall, wild grass, cat's-tails, etc. and dotted here and there with clumps of willows and wild rose bushes.

Several hummocks covered with rocks and bushes, rise a few feet above the surrounding flat. Through it flows a creek of considerable size that overflows the entire meadow in Spring and Fall. On one side it is bounded by pastures and upland meadows, on the other sides by woodland.

May 24, 1890, I made my initial trip to this place in quest of duck's nests. Upon arriving there, I found the whole meadow covered with water from one and one-half to two feet deep. Divesting ourselves of unnecessary clothing and trappings, we waded in to the nearest hummock. As soon as we showed ourselves on top of the hummock, the ducks began to rise—Wood Ducks, Blue-winged Teal, Mallards and Black Mallards. Occasionally a Bittern, Green Heron, or a Great Blue Heron would take wing, while from the surrounding bushes and grass, could be heard call notes of the Sora and Virginia Rails and the song of countless Long-billed Marsh Wrens and two or three Coots were detected as they sought a more secure retreat in a dense growth of flags.

What a sight for a collector, who, in years gone by had devoted himself to fields and woods! What a thrill wobbled o'er the oological side of my "think tank," as I gazed upon this new field of bird life!