

CURVED-BILLED AND PALMER'S THRASHERS.

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THE following is a comparison of the measurements of the eggs of the Curved-billed Thrasher (*Harporhynchus curvirostris*) from Ramos, State of San Luis Potosi, Mexico, where the elevation is about 8,000 feet, with those of Palmer's Thrasher (*Harporhynchus curvirostris palmeri*) from El Plomo, Sonora, Mexico, where the elevation is about 1,200 feet.

Having been located as a mining engineer in the above mentioned localities, I had the opportunity of making a study of these birds. I am aware that the same variety of birds under different conditions of altitude or latitude will vary both as to the time of nesting and the number of eggs to a set. So that two men may describe the nesting habits of a bird, and though they may agree as to the composition and position of the nest, they will give a different average for the number of eggs to the set, the date of nesting, and their measurements.

For example, Mr. G. B. Sennett says the Curved-billed Thrasher along the Rio Grande in Texas commences to breed in March and lays four eggs. Mr. Charles J. Maynard says that it lays four or five.

I examined over one hundred nests of this bird during the years 1899 and 1900 and in all only three times were there more than three eggs, and these were, one nest with four young, and two nests with four eggs each. For Ramos I would say that the average was less than three, also their earliest nesting in May. The reason that the birds do not nest earlier is because April and May are the hottest months of the year in this locality, and there is not so much for the birds to eat; the rains begin in June. An example of late nesting at Ramos is the Scaled Partridge. The natives tell me it never nests before the middle of July. I found nests of fresh eggs August 1 and August 25. From this it shows how important it is not to rely too much on facts from any one locality, but as these two localities are especially favored by these birds, and as they outnumber all other birds almost two to one, I could not help comparing them, and I would like very much for



FIG. 1. NEST AND EGGS OF CURVED-BILLED THRASHER. Typical nest in a Nopal Cactus.



FIG. 2. NEST OF CURVED-BILLED THRASHER. Typical nest in Cholla Cactus.

any one who may have notes on these birds further north to compare them with the following.

Although these localities are separated by over eight hundred miles, the climate is the same and the country looks the same; in both cases we have a few mountains between which lie immense mesas and valleys which are mostly timberless and waterless, but covered with a curious growth of cacti in which the birds nest. The cacti of each place are different with the exception of the cholla, which is common in both places, and singularly enough it is the most common nesting site.

The new nest of both birds is generally near the old one, usually in the same cactus, and sometimes the old nest made over.

Sometimes the nest is completed two or three weeks before the eggs are laid. Then again, if the nest and eggs are taken the birds will have another nest and eggs in from twelve to fifteen days, and the new nest is usually about fifty feet from the one taken, but if the first nest is not disturbed the new nest will usually be about five feet from the old one.

The nests of both birds are the same, made of thorny twigs; in fact, nothing grows there without thorns on it, so they can get nothing else. These sticks are six to ten inches long, and form the outside of the nest, which is lined with wire grasses; sometimes horse hair is used in place of the grass, or with it. The nests are externally about ten inches in diameter and eight inches deep; internally about three and one-half inches, both in diameter and depth.

These birds are common permanent residents of these respective places and may be seen in pairs throughout the year, using their old nest for a roost.

The following sets do not represent average sets, but I have selected them to show the range in measurements.

Following are the measurements in millimeters of ten sets of the Curved-billed Thrasher.

| | | | |
|-----------|---------------|---------------|---------------|
| Set No. 6 | 30.95 × 19.05 | 30.83 × 19.05 | 29.45 × 19.20 |
| " 9 | 29.81 × 19.00 | 29.05 × 19.52 | 28.03 × 19.75 |
| " 27 | 29.80 × 19.45 | 29.30 × 19.65 | 28.40 × 19.33 |
| " 57 | 28.29 × 19.45 | 27.95 × 19.46 | 27.48 × 19.71 |
| " 4 | 33.50 × 21.08 | 32.12 × 21.54 | |

| | | | | |
|-----------|---------------|---------------|---------------|---------------|
| Set No. 1 | 26.82 × 19.98 | 26.21 × 20.46 | 24.26 × 19.62 | |
| " 3 | 28.72 × 20.65 | 28.40 × 20.47 | 28.10 × 20.68 | |
| " 32 | 28.95 × 19.90 | 28.67 × 20.13 | 28.52 × 19.94 | |
| " 39 | 30.57 × 20.64 | 30.13 × 20.73 | 29.85 × 20.33 | 29.69 × 20.23 |
| " 54 | 28.08 × 21.05 | 28.03 × 20.75 | 26.63 × 20.38 | |

The average size of 158 eggs is 28.97×20.37 millimeters.

Of the above sets, numbers 6, 9, 27 and 57 were laid by the same bird, numbers 6 and 27 were from one nest and numbers 9 and 57 from another nest.

This shows how these birds retain the same nest from year to year. The dates were No. 6, May 28, 1899; No. 9, June 11, 1899; No. 27, May 19, 1900; No. 57 June 5, 1900. Though the dimensions of these four sets vary, the color and markings of all are the same. This fact has often been mentioned in regard to Hawk eggs taken from the same nest on consecutive years.

Following are averages taken from fifty-eight sets, taken during two years. Average number of eggs, 2.72. Average height of nest from ground, 3.9 feet. Of these nests, forty were in cholla cactus, sixteen in nopalo cactus, and two in palma trees.

My earliest and latest records for fresh eggs were May 17 and July 2. The first brood is hatched about June 1 and leaves the nest in twelve days. The second nest is usually built by this time and the eggs are deposited shortly after.

On May 28, 1899, I found a nest with four young about two days old. This same pair of birds on June 11 had a new nest with three eggs. The male bird assists in incubation and also in care of the young.

Following are the measurements in millimeters of ten sets of Palmer's Thrasher.

| | | | |
|-----------|---------------|---------------|---------------|
| Set No. 4 | 28.78 × 19.07 | 28.46 × 18.97 | 27.57 × 18.91 |
| " 18 | 29.20 × 19.27 | 29.16 × 19.61 | 28.56 × 19.40 |
| " 27 | 28.85 × 19.69 | 28.27 × 19.25 | 26.67 × 19.54 |
| " 7 | 29.91 × 20.69 | 29.20 × 21.13 | |
| " 12 | 30.71 × 20.44 | 30.32 × 20.43 | 29.19 × 20.63 |
| " 13 | 30.95 × 19.82 | 30.85 × 19.82 | |
| " 17 | 28.13 × 19.60 | 26.14 × 19.23 | |
| " 19 | 30.78 × 20.52 | 30.52 × 20.45 | 30.00 × 20.20 |
| " 22 | 32.60 × 20.00 | | |
| " 24 | 28.76 × 19.80 | 27.33 × 19.66 | 27.32 × 19.35 |

The average size of 79 eggs is 28.68×20.05 millimeters.

Of the above sets, numbers 4, 18 and 27 were laid by the same bird, a new nest being built for each set. The dates were March 14, 1898; March 30, 1898; and April 19, 1898.

The similarity of these nine eggs is very striking, and they differ a little in shape, which is elongate ovate, from all the other eggs.

Following are the averages taken from thirty-one sets. Average number of eggs in a set, 2.55. Average height of nest from ground, 4.2 feet. Of these nests twenty-seven were in cholla cactus, three in sibri cactus, and one in palo verde tree. My earliest record for eggs was March 1, and most birds were nesting by March 14, and the second set is laid about April 20.

Generally the spots or specks are more thickly sprinkled on the eggs of the Curved-billed than those of Palmer's and the ground color is a little darker. But the description of one will do for the other.

The shape of the eggs varies a great deal, from ovate to elongate, or elliptical ovate.

The ground color is generally light bluish green, sometimes light green, bluish white or grayish white, minutely specked or spotted with cinnamon brown and lavender. In some eggs the markings are like fine pin points. The less the number of spots the larger they are. Usually there are not as many spots at the small end, and the spots are uniform over the middle and large end of the egg. In some eggs most of the spots are at the large end and in very few we have a wreath. In some the spots are so faint that they can just barely be seen. In no case are the markings so thickly sprinkled as in the average egg of the Brown Thrasher.