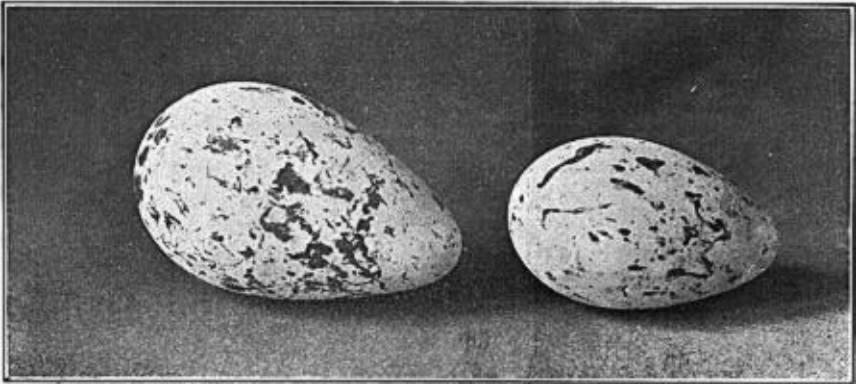


TABLE OF MEASUREMENTS IN MILLIMETERS OF NORMAL AND SMALL-SIZED EGGS OF THE CALIFORNIA MURRE.

TYPICAL EGGS		SMALL EGGS		TYPICAL EGGS		SMALL EGGS	
1	50 x 81	43 x 69	6	52 x 86	42 x 79		
2	51 " 84	43 " 69	7	52 " 86	41 " 71		
3	51 " 82	43 " 67	8	53 " 83	45 " 69		
4	52 " 81	43 " 70	9	52 " 86	39 " 60		
5	52 " 90	43 " 65	10	52 " 86	37 " 63		



EGGS OF CALIFORNIA MURRE

Twelve Rock Wren Nests in New Mexico

BY FLORENCE MERRIAM BAILEY

ILLUSTRATED WITH PHOTOGRAPHS FROM THE BIOLOGICAL SURVEY COLLECTION

ROCK wrens abound among the eroded sandstone cliffs and gulches of the plains region of New Mexico, and while we were working in the country last summer we found twelve of their nests and innumerable families of young birds.

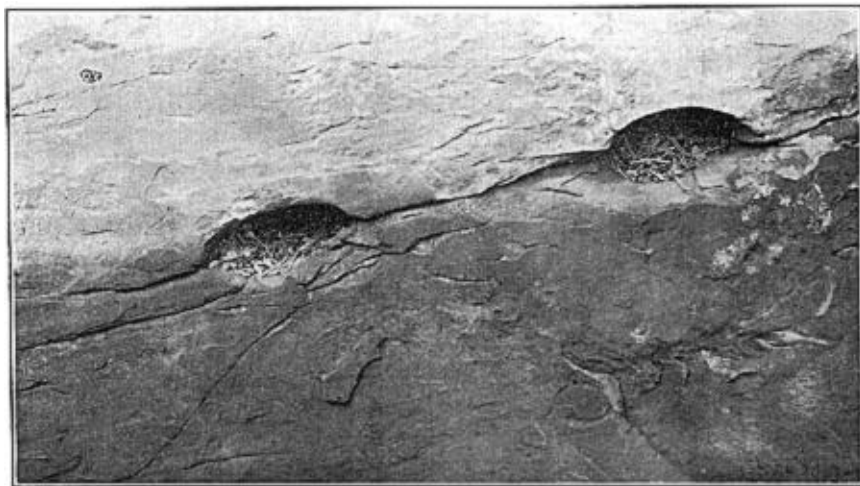
Our twelve nests were distributed over a period of three months with margins on either side, the first of those containing young being found on May 23, and the last on August 25. Of the four nests of young that we discovered, three were found between May 23 and June 1. A nest containing six eggs on June 27 was our only record of eggs.

As the wrens themselves identified eight of our twelve nests—the one containing eggs, the four with nestlings, and also three of the unoccupied nests, the old birds being in evidence about them—we became sufficiently familiar with the Salpinctian style of architecture to leave no doubt as to the identity of the remaining four.

While the nests varied in bulk and the relative proportion of sticks, weeds, and grass stems used, and one builder so far departed from the general custom as to line with hair and feathers, one peculiarity characterized all twelve of the

nests—they were made largely of small stones! Where the nests were in cracks or holes in the faces of boulders, the stones were usually merely mixed with the sticks and weeds of the nest itself, but in one case where the nest was in a crack of a slanting boulder over which four-footed egg hunters might make their way, the stones were piled up in front along the edge of the crack leaving little room for any but the owner to enter. This was also the case with a nest placed in the crack of a cut bank.

The most curious feature about the use of the stones was that where the site admitted, there was generally a mass of stones leading away from the nest—like a gravel walk from a door. One of the two ground nests that we found—built so far back under a rock that the young could be seen only when they raised their heads for food—had a striking pavement. On counting the stones of walk and entrance, I was surprised to find that there were fifty, and there were doubtless many more mixed in with the materials of the nest. The stones, like most used by the wrens were bits of sandstone, varying from half an inch to an inch and a half



ROCK WREN NESTS IN FACE OF BOULDER

in length. Those in figure 2 are quite characteristic, although they are not so flat as many that are used. One nest in a hole in a rock about three feet from the ground, had a wide entrance paved with them very much like that of figure 2. Eighty-three stones were counted here, and there were many more mixed in with the mass of the nest. The largest number that I counted belonged to the nest shown in figure 2. It had *two hundred and sixty stones*, none of them less than half an inch in length! In addition to the stones and the soft grassy nest lining there was a quart can full of coarse sticks, many of them four or five inches long and as large around as a lead pencil. This nest is now on record in the National Museum.

Two possibilities suggest themselves in explanation of this astonishing work of the wrens. In a general way it is in line with the wrenish habit of making bulky nests—a matter of protection perhaps, like the great accumulations of the wood rats. In special cases where the entrance to the nest is partially closed by the stones, the purpose can be easily understood. Protective reasons do not apply, however, to the masses of stones leading away from the nest, sometimes as far as

eight or ten inches. Some of these might easily have been dropped by the birds in bringing them to the nest, for many of them are heavy loads for such slender bills at best, but it is of course impossible to imagine that such accumulations of stones could be the result of accident.

In rock walls filled with cracks and openings that, to the superficial glance look just alike for miles, might it not perhaps be a help to have a stone walk before the one crack you lived in? The question leads back to the more far reaching one—how do birds locate their nests and young? Is 'intuition', a 'sense for locality' helped out by observation of details such as might be noted by men? The subject offers an interesting field for observation. It would be interesting, also, to find out whether *Salpinctes* uses stones in its nests in other formations than sandstone, where small light stones are not so readily found for the looking. In other words, how general is the Salpinctian use of stones, and what proportion of nests have the walks leading away from them?

Washington, D. C.



ROCK WREN NEST IN CLIFF

Some Winter Birds of the High Sierras

BY WILLIAM W. PRICE

ILLUSTRATED WITH PHOTOGRAPHS BY THE AUTHOR

BY December or January winter has closed down over the High Sierra and it does not lift until June. The snow falls day after day, not in light playful flurries, but in great heavy flakes out of a leaden sky, so thick you cannot see a hundred yards. This snow piles up deep on rock and tree, two or three feet in a night, an even blanket over all the landscape. Or the snow may come with