

eggs be substituted. This was done, and 12 runt eggs were safely received by the Bureau accompanied by a statement from Mr. Keller to the effect that the complete set numbered 14, but two were broken in the nest. The duck accepted five normal eggs substituted by Mr. Keller, and on June 3 hatched five Pintail ducklings.

Comparison of the runt eggs with normal specimens shows the ground color to check very closely although the runt eggs are more heavily stained. The shell texture and thickness are normal except that the smallest eggs are more granular, par-

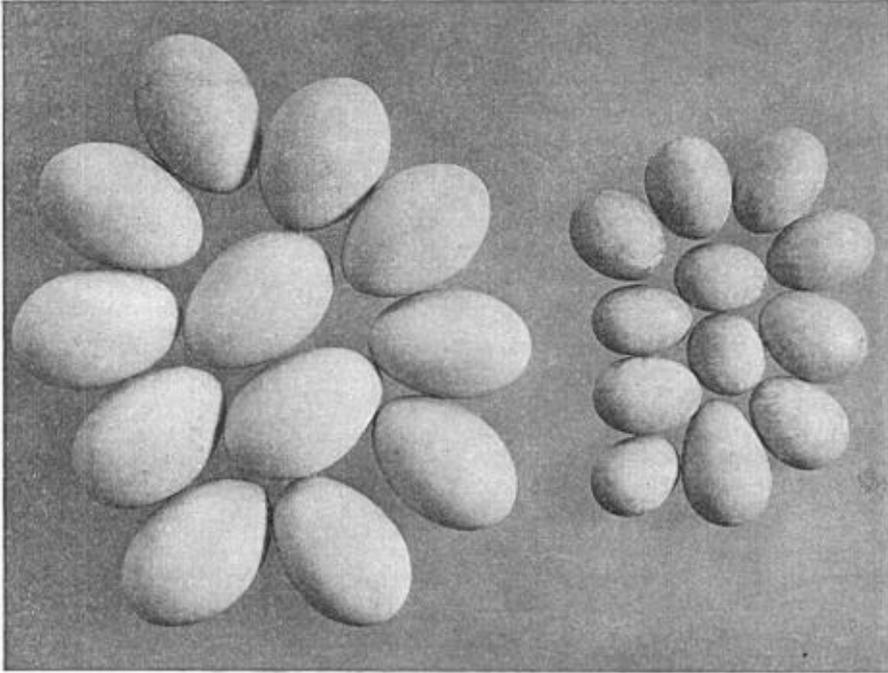


Fig. 16. Set of Runt Mallard Eggs photographed alongside a Normal Set of Equal Number. (All greatly reduced.)

ticularly at the larger ends. Measurements in millimeters are as follows: 45.0 x 30.1, 39.6 x 28.8, 38.7 x 29.7, 36.9 x 28.4, 36.9 x 29.1, 37.6 x 28.1, 36.8 x 27.8, 36.1 x 29.0, 34.8 x 25.1, 32.9 x 26.4, 32.8 x 24.9, 30.2 x 26.5. According to Bent (Life Histories of North American Wild Fowl, Bull. 126, U. S. Nat. Mus., 1923, p. 39) the measurements of 93 normal eggs average 57.8 x 41.6.

It is, of course, impossible to be sure why this set was abnormal. Mr. Keller reported that the duck apparently was in perfect condition. As she was fully adult when banded in 1927, her age is unknown, but it is quite possible that these runt eggs mark the final effort of the ovaries. The set has been deposited in the collections of the United States National Museum.—FREDERICK C. LINCOLN, *Biological Survey, Washington, D. C., October 3, 1933.*

Bush-tit Fighting its Reflection.—In the spring of 1933 my attention was drawn to the actions of a Bush-tit (*Psaltriparus minimus*) that for a long period battled with its reflected image in a second-story window of the bird department of the California Academy of Sciences. Day after day there was to be heard a persistent tapping on one particular window pane. Investigation disclosed an occupied nest in a tree about fifty feet away, suspended at about the same level as the window. The bird always returned to the same pane of glass, one of a series of windows extending the length of the building. Sometimes it fluttered up and down against

the glass, sometimes perched upon a twig that brushed against the window, but pecking always without cessation. Presumably this was the male; its mate sometimes perched nearby, watching the battle but never taking part.

I did not keep an exact record of the time during which this performance continued, but, roughly, it was throughout the month of April. Then there was peace for about three weeks. On May 18 the combatant returned to the window and for ten days more the battle raged. I do not know during what stage of the nesting activities this fighting went on, but during the interregnum, early in May, a flock of young birds was frequently seen in the nearby shrubbery. Perhaps the renewed fighting indicated the beginning of a second nesting.—H. S. SWARTH, *California Academy of Sciences, San Francisco, June 15, 1933.*

Blue-footed Booby in San Bernardino County, California.—On November 2, 1933, a bird was brought in to me for identification by Mr. Malone, the resident game warden. It proved to be a Blue-footed Booby (*Sula nebouxi*). The bird was shot November 1 at Big Bear Lake in the San Bernardino Mountains some thirty miles northeast of the city of San Bernardino. It had been observed flying about over the lake, occasionally plunging into it from a considerable height, for several days prior to the time it was shot.

The specimen has been made into a study skin and is now in the San Bernardino Junior College collection. A check was made on this species in the Los Angeles County Museum; Mr. George Willett, ornithologist there, informed me that two sight records, one accompanied by a photograph, have been reported from California. This specimen from Big Bear Lake seems to be the most northerly record.—ELTON R. EDGE, *San Bernardino Union Junior College, San Bernardino, California, January 3, 1934.*

White-throated Sparrows in Marin County, California.—During my many years of ornithological activity while residing in the San Geronimo Valley, Marin County, California, only three occurrences of the White-throated Sparrow (*Zonotrichia albicollis*) in that county had been recorded; nor had any of this species appeared at my banding station there (established in 1928) until the present fall of 1933, when one was noted on October 21. This was taken for the California Academy of Sciences as a record. The condition of the skull showed that it was an immature bird.

November 18 and 19 seemed to be the crest of the migratory wave of Golden-crowned Sparrows (*Zonotrichia coronata*) for this fall season and the traps were kept busy. An early rain had started the grass, destroying the seeds that these birds largely fed upon, which caused the birds to be in a better humor for appreciating the bait that was used to attract them to the traps.

Late in the afternoon of November 18, while I was banding some Golden-crowns at a little table near a battery of traps, there appeared from the large brush pile close-by, a White-throated Sparrow feeding unconcernedly upon the bait scattered from the trap that I had just placed upon the table. It paid no attention to me in spite of the motions I was making in taking from the trap and banding its occupants, and very soon it flew into a two-compartment Potter trap about twelve feet away, pecked around inside for a short while and calmly flew out again without touching the drop door release. This trick the White-throat played at two more traps in quick succession, greatly to my surprise and disappointment, and then disappeared. However, this sort of game could not be long kept up without something happening, and there was another day coming. It happened on the first round next morning and the White-throat was adorned with band numbered C155566. On being released the bird vanished from sight and did not again appear.

Incidentally, the three days passed at the station were about the busiest in its history, resulting in the banding of 74 Golden-crowned Sparrows and the recording of 116 "repeats" and 6 "returns", proving the immediate presence of 196 individuals of that species, which seems a fairly good number to find visiting a little half-acre garden. The banding dates of the "returns" varied from the fall of 1930 to the spring of 1933.

The next week-end trip to the station, November 25 and 26, showed but few new arrivals present, and only 15 Golden-crowns were banded; but birds already banded were there in great abundance. On November 25 another White-throat