

The Guadalupe Wren.

WHAT may have been the zoological condition of Guadalupe Island at the time of its discovery will probably never be known, but that it was to the botanist and zoologist a spot of surpassing interest and strikingly different from the island of today cannot be disputed. It was in 1875, when visited for the first time by a naturalist, found to be wonderfully rich in both plant and animal life. Not only were the species largely peculiar to the island and quite different from their mainland representatives but botanical genera were found that have since become extinct. It is not unlikely that changes of importance had already taken place since the island became inhabited by man, but such changes must have been largely confined to the flora and it is improbable that any birds had been exterminated up to that time.

I have at the present writing no means of ascertaining when the domestic goat was introduced on the island but as it was placed on many of the coast islands by the early whalers it is not unlikely that this pest held sway on Guadalupe a half century or more before the richness of the flora and fauna was made known to the world by Dr. Edward Palmer in 1875. It is directly due to the despised Billy-goat that many interesting species of plants formerly abundant are now extinct, and also that one or more of the birds peculiar to the island has disappeared, and others are rapidly following.

When the island was first visited Dr. Palmer took two specimens of the Guadalupe Wren, *Thryothorus brevicaudus*. These were probably taken near the center of the island and it is not unreasonable to suppose that before the undergrowth was killed by the goats, the wrens were distributed over the top of the island in all suitable cover.

Ten years later Mr. W. E. Bryant

made an exhaustive survey of the island and found the wrens rare, the few that remained being confined to the northeast end of the island, where a growth of pines straggling along the sharp ridge of North Head afforded a habitat "of 60x300 ft." In this restricted area Mr. Bryant took seven specimens. Fearing the extermination of the species the balance of the colony was unmolested, but as the sheltering undergrowth was more and more constricted by the goats the birds were either blown from the island by violent gales that frequently sweep over it, or killed by cats which infest the entire island since their introduction at about the time of Dr. Palmer's visit in 1875. The last week in May, 1892, Mr. Clark P. Streater, and myself paid a visit of one day to the North Head.

Near the beach and directly below the pines Mr. Streater took a pair of wrens which are now in the collection of the Biological Survey. On the ridge near the spot where Bryant found them, I discovered a bird which was secured, and saw what may have been a second but was of doubtful identity. Since that date I have made several calls at Guadalupe, and though the entire top of the island was carefully searched by myself and several assistants for days at a time we never found any signs of the species which must now be classed among those that were.

The constant destruction of all low-growing vegetation by the goats still continues, not only consuming the nesting sites and shelters of Junco, Pipilo and all ground-nesting species but giving to the ever-watchful cat more favorable opportunities for destroying the few birds that are left. *Pipilo consobrinus* is now nearly or quite extinct and the juncos are surely but steadily becoming scarce. Since the goats kill all of the young trees as soon as they appear above ground, and the larger trees are dying, the outlook for the future flora and fauna is not bright.

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