## THE GREY DUCK

## NEED FOR REAL SANCTUARIES

THE plight of the grey and other species of native duck is yearly becoming more and more desperate. Overshooting, the destruction of natural habitats, the importation of black swan, mallard and other foreign competitors, concentration of shooting on waterfowl owing to the rapid decrease of upland game birds during many years such as pheasants and quail, have all been factors in depleting the numbers of native waterfowl.

Various expedients have been suggested to avoid the inevitable finale—the placing of all native waterfowl on the list of absolutely protected birds. Amongst the various suggestions put forth have been the destruction of hawk and pukeko and the closing of the shooting season for one or two years.

The killing of the natural enemy in a wholesale manner is perhaps the usual remedy occurring to the non-biological mind, which does not take into consideration the fact that hawks, for instance, are the arch enemy of rodents and that rats take a tremendous toll of ducklings, so much so that one competent observer, who has unique opportunities for making accurate observations, concluded that no less than 90 per cent. of the ducklings hatched in his district fell a prey to rats.

A close season, although it is necessary as a primary measure, falls far short of the need. Such procedure, because of the very ineffective field administration of wild life matters in New Zealand would merely result in shooting of the increase, upon the resumption of legal killing, despite bag-limit restrictions.

What then is the real remedy for the present state of affairs with regard to our disappearing native waterfowl? It is, of course, plain to anyone with any knowledge of real conservation that large-scale efforts should be made to reestablish the natural habitat on a comprehensive scale by setting up a chain of efficiently-designed and managed waterfowl sanctuaries throughout the Dominion.

The following description of a sanctuary in Utah and how it is proposed to administer it, as explained by George H. Nichols in "Bird

Lore," will illustrate what is meant by an efficiently-managed sanctuary:—

## A WILDFOWL UTOPIA.

By George H. Nichols.

On a perfect early June day, at the height of the nesting and brood-rearing season, in the most nearly perfect part of the year in that locality, we travel westward out of Brigham City, Utah, to visit the ideal and nearly completed Federal Government wildfowl sanctuary, the Bear River Migratory Bird Refuge.

The road to the Refuge leaves this northern Utah city on Forest Street, traversing, from almost immediately outside it, the low alkali flats which were at one time the bed of ancient and mysterious Lake Bonneville, a scant remnant of which is now the Great Salt Lake. Three shore-lines, marking different levels of the old lake, can plainly be seen to the left, after a turn southwest. Highest of these—almost 1000 feet—shows the Bonneville line, a few hundred feet below, the Stansbury, and, low at the base of the Wasatch Range, the Provo level, all named for early explorers.

Our road extends through a distance of six to eight miles, well rounded above the flat to facilitate wet-weather travel. The soil is almost bare, deprived of all growth except a scant mantle of wire-grass.

Sluggish old delta channels with barren banks appear, unusual to the West where rivers mainly are confined to narrow canyons and valleys, their waters rushing and leaping. In the Mississippi Valley such slow streams as these would be lined and overhung with swamp elms, ash, maples, birches, and sycamores, and would bear the name "bayous."

Marshlands begin to appear now, interspersed with numerous barracks-like structures which in season house the members of duck clubs. These clubs are the forerunners of the Government's present work of reclamation for wild life. Mostly they have been in existence for many years. One of them bears the modest, shrinking name, "The Millionaires' Duck Club."