

"THE BALANCE OF NATURE."

(Extracted from "*Practical Value of Birds*,"

JUNIUS HENDERSON.)

The introduction of the English Sparrow into the United States, the consequent decrease in the number of insectivorous birds in some localities and the increase of certain insect pests, are too well known to need much discussion. Forbush says that this bird was introduced into America to fight the caterpillars of the snow-white *Eugonia* moths, which were defoliating shade trees, and that they did their work well, but they drove out other birds and thus caused an increase in the tussock moths, which for several years thereafter ravaged the trees. This Sparrow is an excellent example not only of the danger of importing a species into a new country, but also of the effect of the intervention of man through his inventive genius. It has been noticed that in some cities there has been a marked decrease in the number of English Sparrows since motor-driven vehicles have so largely displaced horse-driven waggons and carriages. Bergtold's explanation is probably correct. In the cities the Sparrows obtained most of their food from the waste grain of the street—the droppings of horses, and so on. This source of food has now practically disappeared from city streets as a result of the decreased use of horses and the surfacing of the streets of the cities with smooth pavements, which are kept clean. On the other hand, in many farming districts the Sparrows get their food from the grain stacks and fields and help themselves to grain thrown out for poultry, and are there still on the increase.

Huey tells us that years ago the importation of cats and mice to the Island of Guadalupe, in the Pacific Ocean, created great havoc by introducing a new element to an island that had no native mammals. Later, goats were introduced and completed the devastation. The goats, being without natural enemies and having at first abundant food, increased so rapidly that they soon almost denuded the island of its vegetation, and, having greatly over-populated the area and reduced their food supply, they themselves became dwarfed and the flesh became poorer in quality.

The historic island of St. Helena was, at the time of its discovery, covered by a dense forest. More recently it has been described as a comparatively barren, rocky desert, because of its devastation by goats (introduced by the Portuguese) which, within 75 years increased to thousands. They browsed off the protective cover of vegetation, exposing the soil of the steep slopes to erosion, and soon bare rocks replaced the wooded hills.