

or other vegetable substance already dead or decaying. Our titmouses, therefore, could hardly be branded as a detriment to the oak and willow trees in which they lived, as they might have been with propriety if the spores had been found to belong to some parasitic fungus injurious to living trees.

I later sent some of the spore-laden feathers to Professor Thomas H. Macbride, of Iowa University, an authority on certain groups of fungi. Although he has tried a variety of culture media, in an attempt to germinate the spores, no hyphae have as yet appeared, and no other promising clue to more exact determination has been found. Professor Horne's diagnosis remains unchallenged. Meanwhile, after the lapse of nine months, the two skins of Plain Titmouse (*Baeolophus inornatus inornatus*) in question have faded out considerably, so that the amber yellow is pale; their "tropical look" has almost gone. Yet, by daylight, they catch the eye quickly where they lie in the series of gray-colored *inornatus*. They, and their loads of spores, constitute Nos. 40,391 and 40,392 in the bird collection of the Museum of Vertebrate Zoology.—J. GRINNELL, *Museum of Vertebrate Zoology, University of California, Berkeley, Calif.*

RECENT LITERATURE

McGregor on 'Some Features of the Philippine Ornis.'—In this admirable paper¹ Mr. McGregor gives us a very clear picture of Philippine bird life, the physical features of the islands and the tremendous modifications that human agencies have effected in them and consequently in the character and distribution of the avifauna.

The destruction of forests and the introduction of plants and trees from elsewhere constitute one of the greatest elements of change and in the Philippines as here, bird life and plant life are intimately related, and change in one means change in the other. While there is no doubt that at one time the native forest covered practically all of the islands, today it has been completely destroyed over two-thirds of the area. Two-fifths of the surface of the islands is now grass land and cultivated fields and even where the forest has been allowed to grow up it is a second growth jungle of bamboo, etc., totally unlike the tall, dark, silent, primeval woodland which was practically free from underbrush. One-half of the thousand species of plants known today from the Philippines are introduced. The effect of all this on the native bird life can readily be imagined and the average visitor to Luzon today never sees any of the primeval forest or the birds that live there.

¹ Some Features of the Philippine Ornis with Notes on the Vegetation in Relation to the Avifauna. By Richard C. McGregor, Ornithologist, Bureau of Science, Manila. *Philippine Journal of Science*, Vol. 16, No. 4, April, 1920, pp. 361-437, Plates 1-35.

Mr. McGregor gives us a most attractive picture of the splendid native forest with the roving bands of small birds, many species closely intermingled, which go coursing through the trees, their passing followed by absolute silence until another band appears. There are certain birds, of course, that frequent the cultivated sections but they are surprisingly few in number.

The first bird to be seen by the visitor to Manila will be the European Tree Sparrow, while the next will be an Asiatic Starling, both, of course, introduced; a rather striking parallel to what one would see in any eastern American city or in those of Europe. There are listed twenty-four others—two doves, four hawks, two owls, a roller, two bee-eaters, two cuckoos, a starling, an oriole, a Java sparrow, a finch, two wagtails, etc.—which we are told are “nearly all that can be found within several kilometers of Manila.” The remainder of the ornithology of the islands consists of forest birds and water birds. The distribution of the former is discussed by the author in considerable detail and the groups of species are correlated with the different types of forest, the pine-covered highlands, best developed in Luzon but found also on Mindoro, Negros and Mindanao, having perhaps the most interesting fauna.

In connection with distribution Steere's well-known law is discussed and a number of exceptions to it are pointed out, the affinities of the avifauna of the several islands are also considered and there is a table of the endemic species showing the presence or absence of each in the eleven groups into which the islands are arranged faunistically. The total number of species and subspecies now known from the Philippines is 639 of which 469 are endemic. In this discussion, by the way, the evil of the modern excessive generic division is very evident. In Wallace's writings as well as in those of Steere, Worcester and others, the old-time genera were of the greatest importance in discussing the relationship of island as well as continental faunas, but the finer divisions of modern taxonomy are almost useless for this purpose, the number of endemic genera in any island depending wholly upon how finely we draw our lines and much of the tabulation of Wallace would be impossible today without the use of some sort of “super-genera” that would indicate very important and obvious affinities which are totally lost sight of in present-day nomenclature.

Of economic interest is a section of the paper which discusses the food of introduced Starlings in relation to locusts and a list of fifteen of the most important locust-eating birds is given. There are minor notes on the food of fourteen other species of Philippine birds.

Thirty-five half-tone plates illustrate the different types of country and forest and add materially to the value of Mr. McGregor's excellent paper, which gives one a better idea of the character of Philippine bird life than anything that has yet appeared.—W. S.