

tion of mounted birds. Have not yet had the opportunity of comparing these specimens with others from different localities, so am not certain as to subspecific determination.

Ceryle alcyon caurina.—As this race has been shown to occupy the entire western portion of the country, south to the southern U. S. border, it would seem fitting that it be known as the Western instead of Northwestern Kingfisher, as used in the 16th Supplement to the 'Check-List.'

Cyanocitta stelleri stelleri.—The writer can see no reason for referring the crested jay from Prince of Wales Island to the form *carlottae*. As has been pointed out by Swarth (Univ. Cal. Pub. Zool. 7: 1911, pp. 78-79), birds from this locality are identical with those occurring throughout the entire Sitkan district.

Pinicola enucleator flammula.—Not very abundant, but as common in summer as in winter. A pair was seen feeding young in a nest fifty feet up in a spruce tree on a mountainside near Cape Lookout, Dall Island, July 10, 1915.

Melospiza melodia rufina. Melospiza melodia caurina.—Both *rufina* and *caurina* were common at Craig throughout the past winter, but, at the present writing, *caurina* is the only form to be found at Wrangell. This latter place, though only about a hundred miles distant from Craig, is, by virtue of its proximity to the mainland, considerably colder.

Nannus hyemalis pacificus.—Rather common at Craig during the past winter, but apparently absent at Wrangell now, though one was seen as late as November 3.

Certhia familiaris occidentalis.—As this bird occupies a much greater range outside of California than it does in that State, would it not be more appropriate to translate its scientific name literally and let it be known as the Western Creeper.

Regulus satrapa olivaceus.—Common at Craig throughout the past winter and still plentiful at Wrangell at date of present writing. (November 11, 1920).—GEORGE WILLET, *Wrangell, Alaska*.

A Striking Case of Adventitious Coloration.—On February 8, 1920, I spent the afternoon with my family at a point in Moraga Valley, Contra Costa County, California, some five miles, airline, northeast of Berkeley. My son Willard undertook to exercise the shotgun for the purpose of securing some specimens of local birds such as happened to be needed at the Museum. In so doing he chanced upon the interesting case now reported.

We had been hearing two Plain Titmouses in a willow thicket up a ravine, and Willard proceeded to stalk them. One was finally shot and brought to me—an object of immediate marvel. For, instead of the usual light ashy gray tone of color, its lower surface was bright yellow. The other bird was still calling from the willows and when brought to hand it, too, exhibited much yellow, though not of the intensity shown by the first. Subsequent dissection, when the two birds were made up

into study skins, showed the first to be a male and the second a female. The two thus evidently constituted a mated pair.

The process of skinning left the birds slightly reduced in vividness of yellow. Before skinning, however, comparisons were made with the plates in Ridgway's (*Color Standards*) (1912). The breast of the male was found to be strong, clear "amber yellow"; that of the female a somewhat weaker tone of the same color. In both birds the amber yellow tinged also the forehead, lores, the soles of the toes and, in faint "wash," the tail; also, in the male, the anal tuft.

A significant circumstance was that the tail of the male, which was decidedly longer than that of the female, was strongly bent to the right. This indicated that the bird had been accustomed to roost in a tree cavity of rather limited capacity, and also that in settling for the night it had habitually pivoted from right to left. Furthermore, both titmouses probably slept in the same cavity.

Various persons about the University were shown the birds before skinning. One ornithologist of some standing exclaimed: "What tropical species is that!" A frequent comment was that here was a "sure enough mutation." But also the suggestion recurred that the birds must have become discolored from some extraneous source. And pollen quickly came to mind. The microscope soon showed that the yellow coloration was indeed of an extraneous nature; great masses of pale yellow bodies adhered to the barbs of the contour portions of the feather vanes. These bodies were quite uniform in appearance, elliptical, with a groove in one side, and with the surface finely speckled or "sculptured." They measured dry about 3.6 by 6.0 micra. In water they became more nearly spherical in shape.

Appeal was then made to the botanists to see whether we did not have here a simple case of pollen-carrying by birds. Professors H. M. Hall and N. L. Gardner kindly looked into the matter. Comparisons were made with various pollens available in February—willow, alder, hazel, etc.—but nothing could be found which served to solve the problem. It was the consensus of opinion that the grains in question belonged as pollen to no plant known to the locality; but a fruitful suggestion *was* offered, namely, that the grains might be the spores of some fungus. Appeal was then made to Professor W. T. Horne, Plant Pathologist of the College of Agriculture. After examining the material he thought it likely that we had to do with spores of some species of slime-mould (Order Myxomycetes). Such fungi are liable to occur in great quantity after a wet period in and around rotted-out hollows of tree-trunks. This brought the matter much nearer to a satisfactory solution.

As to the role of the titmouses as spore carriers, the present case cannot be counted definitely against them. For nearly all the slime-moulds, according to Professor Horne, are non-economic in bearing, being saprophytes; in other words, these fungi gain their nourishment from wood

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.