

in 1905, he saw on July 26 a flock of about forty, both adults and young, all that were collected being young birds; on August 2, *all* of these birds had disappeared. This exact locality, a sandy point at the western end of the lake, was visited only on the above dates. These birds were undoubtedly migrants, as they were not known to have bred in that vicinity.

After I had left Saskatchewan, Dr. Bishop visited the breeding grounds of the Marbled Godwits, and on July 3, 1906, found adult birds tolerably common, but they had all departed two days later. At Big Stick Lake, from July 18 to 21, 1906, he saw large flocks of adult Godwits containing hundreds of birds, but on July 22 very few were left. He also states that adults reach the North Carolina coast in the middle of July, as he has in his collection adults taken on July 11 and 27, 1904, and that young birds appear about a month later, as he has specimens taken August 10 and 19, 1904.

Evidently the Godwits move off their breeding grounds as soon as the young are able to fly, those birds which have been unsuccessful in rearing their young being the first to leave, and forming the vanguard of the early migration in July. Probably most of the adults start on their southward migration before the end of July, and well in advance of the young, the later flight being composed almost entirely of young birds, and moving more deliberately.

A HYBRID GROUSE, RICHARDSON'S + SHARP-TAIL.

BY ALLAN BROOKS.

Plate IV.

THROUGH the courtesy of Mr. C. deB. Green I have had the privilege of examining a most interesting hybrid between *Dendragapus o. richardsonii* and *Pediæcetes p. columbianus*, shot at Osoyoos, B. C.

Roughly speaking this bird may be said to have the coloration



HYBRID GROUSE.

Dendragapus obscurus richardsonii + *Pediacetes phasianellus columbianus*.

on the upper surface of a female Richardson's Grouse, and on the lower of a male Sharp-tail. In size it is between the two species with the following measurements: ♂ ad. wing, 8.5 inches; tail, 5.5 inches; middle toe and claw, 2.05 inches; culmen, .55 inches.

The tail is evenly graduated, the center rectrices .85 inches wide, outer .55 inches, falling short of the center pair by 1.5 inches. Feet with pectinations well developed and claws very long, middle claw .65. Feathers on tarsi long and dense, reaching beyond the first joint of middle toe. A conspicuous 'comb' over the eye deep yellow.

The marking on crown of head, hind neck, dorsal region, and scapulars very much resembles that of an adult female Richardson's Grouse; rump between the two species; wing coverts edged and tipped with white, but with none of the conspicuous round white spots of the Sharp-tail. Tail black, the central pair of feathers with a broad band of freckled gray on tip; outer feathers with diminishing tips of grayish white.

The whole under surface is very similar to that of a male Sharp-tailed Grouse; the V-shaped markings on the pectoral region are broader, and the lower tail coverts almost immaculate. The feathers on the center of abdomen are heavily marked with smoke gray down their centers.

I am also indebted to Mr. Green for the following account of its capture:

"On Sept. 15 I was going out for duck, as I had decided to shoot no Prairie Chicken that season because of the wet hatching period the spring before. On my way I passed Hiram Inglees's orchard and went in to get some fruit; while eating plums this bird came down off the mountain and flew all alone into the orchard and lit in the longish grass. I took it for a blue grouse, and went over; it was very tame, and all I could see was its head, which seemed all blue grouse, so I flushed it, intending to put it in the bag, but it got up so quietly and so near that I did not shoot, and it lit on the orchard fence. As it went off I was puzzled at it and so followed up to see it again; on the fence it bothered me more, for one way it was blue grouse, and the other way chicken, and both ways tame. I was not going to kill it unless it would fly and go fast, and I let it go off again without intending to shoot, but just

as it was almost too far I tumbled to it, and killed it by a lucky snap. The flesh was exactly half way, being neither white nor brown.

"Some days after, Hiram told me he had seen the bird repeatedly the spring before, dancing with the Prairie Chickens in his garden.

"The crop was full of leaves of the mountain laurel, and I know he must have gone higher than chicken go, to get them, but something called him down into the orchard where Blue Grouse never are seen except occasionally in July or August."

Mr. Green is of the opinion that the cross is between male Richardson's Grouse and female Sharp-tail, but the appearance of the specimen inclines me to think it is a case of a female Blue Grouse wandering down in the spring into the Sharp-tail country; as in my experience a hybrid generally favors the male parent.

The specimen has been presented by Mr. Green to the Provincial Museum at Victoria.

ASPECTS OF BIRD DISTRIBUTION IN LOUISIANA AND MISSISSIPPI.

BY HENRY H. KOPMAN.

THE writer will explain at the outset that this article has reference chiefly to the southeastern part of Louisiana and to the coast of Mississippi. It is his belief, however, that when he presents a view of some of the characteristic conditions of these sections he will call attention to facts almost if not quite unparalleled in the experience of bird students in other parts of the United States.

Assuming the normal, settled summer bird population of these regions to be the primarily characteristic element in their avifauna, we recognize its chief peculiarity in the dearth of species represented, frequently offset by a great abundance of individuals, but in other cases, much rarer, resulting in an altogether attenuated state of bird-life. The significance of the periods of migration in such regions is therefore obvious, and will be fully discussed later on.