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GEOGRAPHICAL, VERSUS SEXUAL, VARIATION
IN *OREORTYX PICTUS*.

BY ROBERT RIDGWAY.

Plate VI.

CERTAIN inconsistencies in the 'Catalogue of the Game Birds in the British Museum,' in the treatment of North American species, have already been referred to by Dr. Allen in his review of that important work.¹ I feel quite sure that all American ornithologists, at least, who are familiar with the geographical and other variations presented by our Grouse and Partridges will fully indorse the reviewer's observation that "it seems about time to expect a more intelligent conception of the subject of subspecies and 'climatic variation' than is shown in the present volume"; but I am sorry Dr. Allen did not give his attention to the remarks on the American Ptarmigans in the Introduction to the 'Catalogue of the Game Birds,' which might be considered "amusing" were

¹ Cf. *The Auk*, April, 1894, pp. 171, 172.



A. H. S. 1885

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PLUMED PARTRIDGE
(*OREORTYX PICTUS PLUMIFERUS*).

MOUNTAIN PARTRIDGE
(*OREORTYX PICTUS*).

they not so utterly nonsensical and misleading. The remarks to which I refer read as follows: "I fully anticipate that I shall be blamed by some for having united all the Nearctic '*species*' of *Lagopus* described by American authors with *L. rupestris*; but I am sure that unless the practice be adopted of distinguishing *every individual variation* or slight climatic variety by a separate *specific* name, a careful study of these birds will lead to the same conclusion as that to which I have arrived."

The words which I have italicized in the above quotation express exactly what American ornithologists have *not* done; in fact, to do so would be as far as possible from their principles and practice. None of the subspecies of *L. rupestris* recognized in the A. O. U. Check-List are founded on individual variations, but on constant differences between specimens of corresponding seasonal and sexual plumages from distinct geographical areas. Some of these subspecies may be considered "slight climatic varieties," it is true; but their characters, however slight, are constant. These geographical forms are not recognized as "species," as Mr. Ogilvie-Grant intimates, but are distinctly ranked as subspecies—a distinction which some people seem to be unable to comprehend. Furthermore, these subspecies are, in most cases, based on a far larger series of specimens than are possessed by the British Museum.¹

To assume that American ornithologists do not recognize the vast difference between individual variations and those of a climatic or geographical character is to acknowledge inexcusable ignorance of their work or inability to understand the very simple and logical principles upon which it is based.

The subspecies selected for illustration of this article, along with its conspecific type, is perhaps the least satisfactorily differentiated of the forms which are suppressed in the 'Catalogue of the Game Birds.' The characters on which *Oreortyx pictus plumiferus* was separated from *O. pictus* proper consist in its much grayer coloration, with the whole hind-neck and upper back usually bluish gray instead of rich brown, like the back. Mr. Ogilvie-Grant, in his comments on the validity of the form (Cat. B. Brit.

¹ Of *Lagopus rupestris atkhensis*, for example, the U. S. National Museum possesses 29 specimens in summer plumage (May to middle of July), and of *L. r. nelsoni*, 25 specimens of corresponding dates.

Mus., vol. xxii, p. 398, foot-note), ignoring the former character, remarks as follows:—

“Most of the males have the mantle gray, but in some specimens this colour is more or less mixed with olive-brown; on the other hand, most females have the olive-brown continued up the back of the neck to the crest, but some have the upper mantle more or less washed with gray. *I have seen no males with the olive-brown going up to the crest, and no females have the back of the neck and mantle clear gray like the breast* [italics mine]; but several specimens in intermediate plumage belong to both sexes. Ridgway, in his ‘Manual,’ p. 191, recognizes two subspecies . . . and uses these *sexual* characters to distinguish them. He makes out that the brown-necked birds (females) are confined to the Coast-region, while those with gray neck and mantle (males) inhabit the Sierra Nevada. But in a good series of specimens from Carson, Nevada¹, I find many brown-necked birds (all females) as well as gray, and from the Coast-region there is about an equal number of each.”

To show that Mr. Ogilvie-Grant entirely misunderstands my diagnosis of *O. p. plumiferus*, I quote the following from p. 191 of my ‘Manual’:—

“*a*¹. Above deep olive-brown or umber, this color *usually*² continued uninterruptedly over hind-neck to the crest; inner edges of tertials deep buff or ochraceous; forehead entirely ashy. *Hab.* Pacific coast district, from San Francisco north to Washington Territory. 292. *O. pictus* (Dougl.). Mountain Partridge.

“*a*². Above grayish olive, the hind neck *usually*² partly or wholly plumbeous, like the breast; inner edges of tertials light buff or buffy whitish; forehead distinctly paler (often whitish) anteriorly. *Hab.* Sierra Nevada (both sides) from Oregon southward; southern coast district of California? Lower California? 292 *a.* *O. pictus plumiferus* (Gould). Plumed Partridge.”

¹ It would be interesting to know where these specimens are and what the author considers a “good series.” Only two specimens from Carson are mentioned in the list of specimens in the British Museum Collection.

² Not italicized in the original, but it should be noted that I was careful to indicate that the character in question was not constant!

Although confident that no mistake had been made in the diagnoses of the two forms and equally certain that the differences were not sexual, I have taken the trouble to again carefully examine all the specimens accessible to me with the view of testing the single character of the color of the hind neck—a character never claimed by me to be of more than secondary importance—and have tabulated the results, which are given below. Only specimens whose sex was determined by the collector are used, and the series was divided, previous to examination as to color of neck, into two series according to the geographical area represented. It will be seen by examination of these tables that the character is *not* sexual, and that it is, as claimed by me, to a large extent geographical. When the character in question fails as an index of locality, other characters do not; gray-naped birds from the Pacific coast being altogether more saturated in their coloration than brown-naped examples from the interior and southern coast districts.

SPECIMENS FROM NORTHERN COAST DISTRICT (NORTH OF SAN FRANCISCO BAY).

	Brown-naped.		Intermediate.		Gray-naped.	
	♂	♀	♂	♀	♂	♀
No. 2831, U. S. N. M., "Columbia River."		*				
" 84569, " Coast Range, California.	*					
" 85169, " "Oregon."	*					
" 97545, " Portland ¹ , Oregon.				*		
" 126349, " Victoria, B. C.		*				
" 129370, " Sodaville ¹ , Oregon.				*		
" 129371, " " "				*		
" 129372, " " "				*		
" _____, Dept. Agric., Yaquima, "	*					

¹ Both Portland and Sodaville are situated in the valley between the Coast Range and Cascades. These localities are, therefore, intermediate.

SPECIMENS FROM THE SIERRA NEVADA AND SOUTHERN COAST DISTRICTS.

		Brown-naped.		Intermediate.		Gray-naped.	
		♂	♀	♂	♀	♂	♀
No.	10231, U. S. N. M., Ft. Tejon, Cal.					*	*
"	53662, " Carson City, Nevada.					*	*
"	53663, " " "					*	*
"	72645, " Mts. near Ft. Tejon, Cal.					*	*
"	72647, " " " "					*	*
"	73979, " Calaveras Co., "			*			
"	80083, " Walker's Basin, "					*	*
"	84568, " San Francisco, "					*	*
"	84569, " Carson City, Nevada.					*	*
"	91969, " Baird, California.					*	*
"	92480, " Mt. Shasta, Cal.					*	*
"	92482, " " " "					*	*
"	95153, " Carson City, Nevada.					*	*
"	95154, " " " "			*			
"	100330, " Campos, Lower California.					*	*
"	105299, " Little Bear Valley, California.					*	*
"	105300, " " " "					*	*
"	234, Dept. Agric., Argus Range, "					*	*
"	247, " " Inyo Co., "					*	*
"	265, " " " " "					*	*
"	—, " " Coso Mts., "			*			
"	—, " " Panamint Mts., "					*	*
"	—, " " " " "					*	*
"	—, " " " " "					*	*
"	—, " " Cajon Pass, "					*	*
"	—, " " Kern Lake, "					*	*
"	4958, A. K. Fisher. San Gabriel Mts., "					*	*

THE HABITS AND INDIVIDUALITIES OF THE RED-SHOULDERED HAWK (*BUTEO LINEATUS*) IN THE VICINITY OF BROOK-LINE, MASS.¹

BY FRED. H. KENNARD.

THIS paper is intended to give, so far as is possible, the results of my own personal observations of this bird and its habits,

¹ Read before the Nuttall Ornithological Club, March 19, 1894.