

196. *Aix sponsa* Boie. WOOD DUCK; SUMMER DUCK. — Common during migrations; some remain to breed.
197. *Fulix marila* Bd. SCAUP DUCK. — Common in winter on Galveston Bay.
198. *Fulix affinis* Bd. LITTLE BLACK-HEAD. — Very common in winter.
199. *Aythya vallisneria* Boie. CANVAS-BACK. — Abundant in winter on Galveston Bay and on all marshy districts near the Gulf Coast.
200. *Bucephala albeola* Bd. BUTTER-BALL; BUFFLE-HEAD. — Abundant in winter near the coast.
201. *Erismatura rubida* Bonap. RUDDY DUCK. — Very common during migrations; none remain to winter, but many breed.
202. *Pelecanus erythrorhynchus* Gmel. AMERICAN WHITE PELICAN. — Common during winter, especially near the coast.
203. *Pelecanus fuscus* Linn. BROWN PELICAN. — Common during the breeding season on all the rivers, creeks, and bayous near the coast.
204. *Plotus anhinga* Linn. AMERICAN ANHINGA; SNAKE BIRD; "WATER TURKEY." — Breeds in all marshy localities and is very common.
205. *Larus atricilla* Linn. LAUGHING GULL. — Abundant near the Gulf Coast; breeds on the small sand islands in Galveston Bay.
206. *Sterna anglica* Montag. GULL-BILLED TERN. — Breeds abundantly on the islands of Galveston Bay.
207. *Sterna regia* Gambel. ROYAL TERN. — Breeds in considerable numbers on the islands of Galveston Bay.
208. *Sterna cantiaeca acuflavida* Ridgw. CABOT'S TERN, and—
209. *Sterna forsteri* Nutt. FORSTER'S TERN. — These and a few other Terns breed in abundance on the islands near the coast, especially on the sand bars of Galveston Bay, where they lay their eggs on the bare sand. It was impossible for me to distinguish the eggs, as the birds all leave the nests as soon as they are approached.

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NOTES ON SOME BIRDS COLLECTED BY CAPT.  
CHARLES BENDIRE, AT FORT WALLA WALLA,  
WASHINGTON TERRITORY.

BY WILLIAM BREWSTER.

THE following paper is based on a collection of about two hundred and fifty birds obtained in the immediate vicinity of Fort Walla Walla during the autumn and winter of 1881-82, and submitted to me for determination by Capt. Bendire, who has kindly consented to my publishing any notes respecting them, that seem of sufficient interest.

As an exponent of the workings of geographical variation in species easily modified by their surroundings, this material is especially instructive. The region represented apparently constitutes a sort of neutral ground between the Pacific and Middle Provinces and naturally its fauna is a mixed one. Setting aside species not subject to geographical modification, and migrants from the north which have only an indirect bearing on the general question, we find the collection divisible into three classes: (1) Forms identical with or most nearly like Pacific coast types; (2) Forms about intermediate between representatives inhabiting the Pacific and Middle Provinces; (3) Forms to a certain extent intermediate between Pacific and Middle Province representatives, but differing from both in certain original characteristics. The locality seems to be nearly lacking in typical representatives of the Middle Province; and its fauna, on the whole, must be regarded as closely related to that of the coast region.

The third class, although least numerous, includes many of the most interesting birds. The majority of these are resident forms, a fact which sufficiently explains many of their peculiarities, for it is well known that sedentary species are, of all others, the most subject to local variation.

But while the philosophic bearing of this material is not doubtful, there are certain systematic difficulties in the way of its satisfactory presentation. I refer to the *naming* of these intermediate forms. The practice has been to use the name of the race to which the bird seems most nearly related, and this I have been forced to adopt in default of a better way. But the method obviously fails to meet the requirements of such cases, while to a certain extent it is unscientific and inaccurate. The evil, however, is not likely to be remedied, for it is difficult to conceive of a system of nomenclature that would adequately designate the numberless intermediate and local types.

In the present connection I would gratefully mention the assistance received from my friend, Mr. Ridgway, who, during my study of the collection, has given me every facility for examining the matchless series in the National Museum, and to whom I am further indebted for many valuable suggestions. My obligations to Capt. Bendire are greater than I can adequately express, for, in addition to other kind attentions, he has generously

presented me with many valuable specimens included among those about to be discussed.

LIST OF SPECIES AND VARIETIES REPRESENTED IN THE COLLECTION.

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| <p>1. <i>Turdus migratorius</i>.*<br/>                 2. <i>Turdus migratorius propinquus</i>.<br/>                 3. <i>Sialia arctica</i>.<br/>                 4. <i>Myiadestes townsendi</i>.<br/>                 5. <i>Regulus satrapa olivaceus</i>.<br/>                 6. <i>Parus atricapillus occidentalis</i>.<br/>                 7. <i>Telmatorhytes palustris paludicola</i>.<br/>                 8. <i>Anthus ludovicianus</i>.<br/>                 9. <i>Lanius borealis</i>.<br/>                 10. <i>Ampelis garrulus</i>.<br/>                 11. <i>Ampelis cedrorum</i>.<br/>                 12. <i>Hesperophona vespertina</i>.<br/>                 13. <i>Chrysomitris tristis</i>.<br/>                 14. <i>Passerculus sandwichensis alaudinus</i>.<br/>                 15. <i>Zonotrichia gambeli intermedia</i>.<br/>                 16. <i>Spizella monticola ochracea</i>.†<br/>                 17. <i>Junco oregonus</i>.<br/>                 18. <i>Melospiza fasciata guttata</i>.<br/>                 19. <i>Pipilo maculatus megalonyx</i>.‡<br/>                 20. <i>Agelæus phœnicus</i>.<br/>                 21. <i>Sturnella neglecta</i>.<br/>                 22. <i>Scolecophagus cyanocephalus</i>.<br/>                 23. <i>Corvus americanus</i>.§<br/>                 24. <i>Pica rustica hudsonica</i>.<br/>                 25. <i>Cyanocitta stelleri annectens</i>.<br/>                 26. <i>Eremophila alpestris</i>.  </p> | <p>27. <i>Picus pubescens gairdneri</i>.<br/>                 28. <i>Melanerpes torquatus</i>.<br/>                 29. <i>Colaptes auratus hybridus</i>*.<br/>                 30. <i>Colaptes auratus mexicanus</i>.<br/>                 31. <i>Ceryle alcyon</i>.<br/>                 32. <i>Asio americanus</i>.<br/>                 33. <i>Asio accipitrinus</i>.<br/>                 34. <i>Scops asio kennicotti</i>.†<br/>                 35. <i>Bubo virginianus subarcticus</i>.‡<br/>                 36. <i>Bubo virginianus saturatus</i>.<br/>                 37. <i>Nyctea scandiaca</i>.<br/>                 38. <i>Falco columbarius suckleyi</i>.<br/>                 39. <i>Falco richardsoni</i>.<br/>                 40. <i>Falco sparverius</i>.<br/>                 41. <i>Accipiter fuscus</i>.<br/>                 42. <i>Astur atricapillus</i>.<br/>                 43. <i>Astur atricapillus</i> var. —? §<br/>                 44. <i>Buteo borealis calurus</i>.<br/>                 45. <i>Buteo swainsoni</i>.<br/>                 46. <i>Archibuteo lagopus sancti-johannis</i>.<br/>                 47. <i>Archibuteo ferrugineus</i>.<br/>                 48. <i>Zenaidura carolinensis</i>.<br/>                 49. <i>Bonasa umbella sabinii</i>.<br/>                 50. <i>Pediæcetes phasianellus columbianus</i>.<br/>                 51. <i>Charadrius dominicus</i>.</p> |
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\* Typical; the occurrence of both forms seems at first thought anomalous, but *migratorius* may be a migrant from Alaska, where it is the representative bird.

† *Var. nov.* See page 228 of this number.

‡ Nearly typical, but showing slight approaches to var. *oregonus*.

§ Typical, and not approaching var. *caurinus* of the coast-region.

|| Typical.

\* One specimen, with a complete red nuchal band.

† See my late paper on this Owl (this Bulletin, Vol. VII, pp. 27-33). Six examples in the present collection offer no new points affecting the position there taken.

‡ Slightly aberrant; see remarks under *B. saturatus* (p. 230).

§ See remarks under *A. atricapillus* (pp. 231, 232).

## SPECIES AND VARIETIES CALLING FOR SPECIAL CONSIDERATION.

6. *Parus atricapillus occidentalis* (Baird) Coues. OREGON CHICKADEE. — A series of six specimens furnishes satisfactory proof — which I believe has been heretofore wanting — that *P. occidentalis* is simply a dark, geographical race of *P. atricapillus*. One example is absolutely typical of *occidentalis*, while the others grade evenly into a form that is essentially undistinguishable from *atricapillus*. Indeed the lightest colored specimen is so nearly like some Massachusetts birds taken at the same season that I have been unable, after a most careful comparison, to detect the slightest difference in either color or markings; the wing of the Walla Walla skin, however, is slightly shorter. There are no apparent approaches in this series to *P. septentrionalis*.

16. *Spizella monticola ochracea* var. nov. WESTERN TREE SPARROW. — Ch. Subsp. ♂ ♀ Similis *S. monticolæ*, sed colore suprâ dilutiore; strigis dorsalibus rarioribus, angustioribus et magis acutè in tergo pallidiorè depictis; lateribus gulâque magis ochraceis; vertice, in auctumnalibus quidem avibus, sæpissimè magis cinereo.

♂ (Fort Walla Walla, Washington Territory, Nov. 8, 1881. Capt. Bendire.) Back and rump pale sandy-brown or brownish ochraceous, the back with sharply defined black streaks which, excepting on the scapulars, have no chestnut bordering; crown invaded centrally, from the nape, by a broad space of pale ash which tinges most of the feathers to their bases and confines the usual chestnut to a small area on the forehead and two narrow, lateral stripes; lores and sides of head pale fulvous; entire under parts washed with warm ochraceous, deepest on the sides and abdomen, palest on the throat where it only partially conceals the ashy beneath. Otherwise similar to *S. monticola*.

*Dimensions.* Wing, 2.94; tail, 2.73; culmen, .43.

*Habitat.* Western North America, east to Dakota, north to Arctic Ocean: Alaska?

The specimen above described differs widely from its nearest approaches among my eastern examples. The ground-color of the back is decidedly paler, bringing out the dark streaks in sharper contrast, which is heightened by the absence of their usual chestnut edging; the ash of the throat and sides of the head is much fainter, and in many places replaced by brownish-fulvous; the under parts, especially the sides and abdomen, are more strongly ochraceous; and the broad, ashy crown-patch gives the head a very different appearance.

Upon testing these characters by comparison with the extensive material in the National Museum, I find the different ground-color and markings of the back to be constant in western birds, while the ochraceous tint of the throat and sides of the head, although most conspicuous in fall and winter specimens, is also a good distinction; the ashy hood is apparently confined to autumnal birds, and with these is variable in extent, as well as sometimes wanting; but as it *never* occurs in eastern examples it is not wholly lacking in diagnostic value.

A comparison of measurements taken from a large number of specimens of both races shows little average difference in size, although the western birds usually have smaller and narrower bills.

18. *Melospiza fasciata guttata* (Nutt.) Ridgw. RUSTY SONG SPARROW.—The thirteen Song Sparrows sent me from Fort Walla Walla represent a form very nearly intermediate between *fallax* and *guttata*. Most of these specimens are decidedly browner above and more heavily streaked beneath than true *fallax*; but on the other hand none of them are as dark as typical *guttata*, although several closely approach that form. One of the lighter examples is even grayer than a Utah skin, and, taken by itself, would necessarily be referable to *fallax*. But the series as a whole may perhaps best be referred to *guttata*.

25. *Cyanocitta stelleri annectens* (Baird) Ridgw. BLACK-HEADED JAY.—An interesting series of Jays collected by Capt. Bendire includes five typical representatives of *annectens*, two nearly typical *stelleri* and four birds about intermediate between these forms. The differential characteristics of the three styles may be briefly given as follows: The first-named has a well-defined and conspicuous patch of white over the eye; the second entirely lacks this marking; the third has it merely indicated by a narrow gray line. In all, the crest is glossy black; the rest of the head, with the breast anteriorly, plumbeous-black; the back plumbeous-brown; and the throat streaked with bluish-white. All have the head above more or less streaked with blue, but the shade and extent of this marking bear no apparent relation to the presence or absence of the white patch over the eyes. Thus examples of each style have the forehead and crown, to a point half an inch behind the eye, thickly marked with blue or bluish-white, while with all there is a more or less complete gradation from this pattern to one in which a few pale streaks are confined to the forehead. Similarly, the greater wing-coverts are distinctly barred with black, faintly crossed with fine dark lines, or entirely immaculate, without regard to the character of the features already mentioned.

The above evidence clearly goes to show that *annectens* grades directly into *stelleri*; but it does not necessarily preclude the recognition of the former as a well-defined geographical race, for the locality under consideration abounds in similarly intermediate forms.

33. *Asio accipitrinus* (Pall.) Newton. SHORT-EARED OWL.—A female, taken Oct 7, has the ground-color of the plumage, both above and beneath, rich, almost rusty, ochraceous; the markings, also, are unusually dark and broad. Three males represent the other extreme, their coloring, especially beneath, being remarkably pale and almost free from any ochraceous tinge.

36. *Bubo virginianus saturatus*\* Ridgw. DUSKY HORNED OWL.—During the autumn of 1881 Great Horned Owls were unusually abundant

\*As Mr. Ridgway has lately pointed out, Cassin's *pacificus* was clearly based on specimens of *subarcticus*, a very distinct race first recognized by Hoy in 1852. Hence the name *pacificus* must give place to *saturatus*, proposed by Mr. Ridgway for "a northern littoral form, of very dark colors."

about Fort Walla Walla, and Capt. Bendire secured no less than fourteen specimens, of which twelve are now before me. In a general way these are referable as follows: eight to *saturatus*, two to *subarcticus*, and two to a form apparently about intermediate between these races. Five of the representatives of *saturatus* are typical, while the remaining three grade into the intermediate form which, in turn, approaches one of the light specimens referred to *subarcticus*. The latter example is not typical, but its companion differs from an Arizona skin only in having slightly darker dorsal markings and a little stronger rufous cast about the face and across the breast, the color and markings elsewhere being essentially the same.

The occurrence of these three forms together is not remarkable, for two of them may reasonably be regarded as migrants from distant and probably widely separated regions. The third possibly represents a resident type, but on this point I have no direct evidence.

38. *Falco columbarius suckleyi*? *Ridgw.* BLACK MERLIN. — A beautiful adult male Pigeon Hawk, taken at Fort Walla Walla Oct. 18, 1881, presents such a puzzling combination of characters that, after carefully comparing it with all the material available, I am still at a loss for a definite opinion regarding its precise identity or relationship. It most closely resembles highly colored, autumnal adults of *F. columbarius*, but the under parts, excepting the throat and a small central space on the abdomen, are rich rusty-ochraceous — almost orange-chestnut on the breast and tibiae, while the usual cinereous above is intensified on the back to a nearly pure plumbeous; the markings of the under parts, also, are unusually coarse and numerous. In these respects it agrees with a bird in the National Museum from Santa Clara, California, but it differs from this specimen, as well as from every other adult that I have seen, in having the outer webs of all the primaries, excepting the first two, conspicuously marked with rounded spots of pale ochraceous.

With *F. richardsoni* it cannot be consistently associated, for the adult, as well as the young of that species, always has six distinct light bars on the tail, while the example under consideration possesses but five. Moreover, the adult male of *richardsoni* is very much lighter colored than the adult of *columbarius*, whereas the present bird is decidedly darker. The adult of *suckleyi* is unknown, but we should expect to find it, like the young, with sparse, inconspicuous spotting on the lining of the wings. In the Walla Walla bird these markings are as numerous and well-defined as in *columbarius*.

Taking all these considerations into account, and bearing in mind the unstable character of so many of the types furnished by this locality, it seems most reasonable to assume that Capt. Bendire's specimen represents the adult plumage of a form which, although referable to *suckleyi*, is more or less intermediate between that race and true *columbarius*. But additional material must be forthcoming before the question can be definitely settled.

39. *Falco richardsoni Ridgw.* RICHARDSON'S MERLIN. — Of this well-marked species the collection contains two immature females, dated

respectively Oct. 13 and Oct. 21, 1881. Neither of these calls for any special comment, but I take the present opportunity to characterize the adult plumage of the male, which apparently has not been previously described.\*

*Falco richardsoni*, adult ♂ (author's collection, Colorado Springs, Colorado, C. E. Aiken). Above pale ashy-blue, most of the feathers of the back, as well as the inner secondaries and many of the scapulars, with fine, black shaft-lines; crown tinged with ochraceous (probably wanting in the highest conditions of plumage), the black shaft-lines here very numerous, each feather being conspicuously marked; forehead and sides of head light ochraceous, the former with narrow black streaks, the latter with broader brownish ones; a well-defined nuchal collar of rusty-ochraceous with darker mottling; secondaries and primary coverts concolor with the back, but with light bars on their inner webs; primaries plumbeous-brown, margined with bluish-white and marked conspicuously on both webs with the same color, the markings on the inner webs being pure white and extending in transverse bars from the shaft to the edge of the feather, those of the outer webs ashy-white and in the form of conspicuous, rounded or quadrate spots; tail crossed by five dark and six light bars, the last of the latter terminal and pure white, the others more or less bordered by pale ashy-blue; all of the dark bars clear black excepting the basal two, which, on the central rectrices, are nearly uniform with the back, but decidedly darker than the light ones with which they alternate; throat pure white and immaculate; remainder of under parts pale ochraceous, deepest on the tibiae and crissum, where it is decidedly tinged with rusty; feathers of the breast, abdomen, flanks and sides with median stripes of clear reddish-brown, these stripes broadest on the flanks (where they are sometimes actually transverse), narrowest across the anterior part of the breast, and everywhere with fine but inconspicuous dark shaft-lines; crissum entirely unmarked; under tail-coverts and tibiae with conspicuous shaft-lines of dark brown; edges of wings pale ochraceous; under wing coverts white, barred with reddish-brown; all the markings of the primaries showing distinctly on their under surfaces. *Dimensions*. Wing, 8.21; tail, 5.18; culmen (from cere), .50.

Were further proof wanting to establish this Falcon's specific distinctness from *F. columbarius*, the difference in the adult plumage of the two would settle the question. The adult male of *F. richardsoni* has the mantle almost as light as that of a Herring Gull, while the conspicuous ashy-white spots on the outer webs of the primaries and the six light tail bands constitute equally well-marked characters. The specimen above described is essentially similar to five examples in the National Museum.

42. *Astur atricapillus* (Wils.) Bonap. AMERICAN GOSHAWK.—The present collection includes four Goshawks, one an adult male, the remain-

\*The supposed adult, described by Mr. Ridgway in the "History of North American Birds" (Vol. III, p. 148), proves to be an immature bird in its second year. The real adult, however, was figured in the second edition of this work.

ing three young, or at least immature, birds in brown plumage. The adult is absolutely identical with Massachusetts specimens, and must be considered typical *atricapillus*. Two of the young agree well with Mr. Ridgway's description of young *striatulus*,\* but the third does not have the markings either darker or more extensive than do several of my New England examples, and the dorsal feathers have an even broader light (ochraceous) edging; the under parts, also, are strongly ochraceous, while the stripes on the flanks are neither cordate nor transverse. The latter characters, however, are probably worthless for they occur in a Tyngsboro (Mass.) bird.

Without going further into details I may sum up my conclusions as follows: (1) That two of Capt. Bendire's specimens (the adult and the young bird just mentioned) are undistinguishable from typical *atricapillus*; (2) That the other two examples (both young or immature) differ from eastern birds in having broader, more linear black markings beneath and a narrower light edging on the feathers above, and are probably referable to a form more or less distinct from *atricapillus*; (3) That true *atricapillus* ranges westward at least to Fort Walla Walla, Washington Territory; (4) That *striatulus*, as at present defined, is a doubtfully tenable variety.

I am not at liberty to pursue the subject further, for I understand that Mr. Nelson is about to propose a new Pacific coast race which occurs, at least as a migrant, in the Western United States, and upon the young of which Mr. Ridgway apparently based his description of young *striatulus*.†

49. **Bonasa umbella sabinii** (Dougl.) Coes. OREGON RUFFED GROUSE.—The series of Ruffed Grouse embraces twelve specimens, all from the immediate vicinity of Fort Walla Walla. These birds apparently represent a dark, or more properly speaking, non-rufescent phase of *sabinii*, corresponding to the gray phase of *umbella*, and bearing the same relation to typical *sabinii* that the Walla Walla *Scops* does to what has been considered typical *S. kennicotti*. This peculiar plumage may be characterized as follows:

*Gray phase*; adult ♂. Above with the ground-color clear, dark ash, nearly uniform and unmixed with reddish even on the wings and tail; throat and breast tinged with reddish-yellow; remainder of under parts white, occasionally with a trace of ochraceous; markings as in typical *sabinii*.

The above description is taken from a bird which probably represents the extreme gray condition, all the others having more or less reddish-brown on the upper parts, especially on the back and wings, although the tail is usually clear ashy. Two specimens, however, show a decided ap-

\* "Darker (brownish-black) markings prevailing in extent over the lighter (nearly clear white) ones. Stripes beneath broad, brownish-black; those on the flanks cordate and transverse."

† The type of the adult *striatulus* has turned out to be merely a light-colored, faintly marked example of *atricapillus*.



proach to what may now be called the *red* phase of *sabinii*, in having the breast, with the entire dorsal surface, including that of the tail, strongly tinged with orange-chestnut which is scarcely duller than in examples from the coast region. Some of the grayer birds present a general resemblance to *umbelloides*, but the ground tint of their plumage is always deeper, the dorsal markings richer and blacker, and the under parts very much more thickly barred. It is probable that this style of coloration will prove to be more or less characteristic of all the Ruffed Grouse inhabiting the region between the Coast Range and the Rocky Mountains.

50. *Pediceetes phasianellus columbianus* (Ord) Coues. COMMON SHARP-TAILED GROUSE. — Three specimens, taken at Fort Walla Walla, differ considerably from eastern birds. The entire upper parts are darker and duller, the usual rusty-ochraceous ground-color being replaced by plain wood brown; the dorsal markings, also, are finer, while those of the under parts are blacker and more generally distributed, the only immaculate area being the centre of the abdomen. These differences do not seem to indicate any approach to true *P. phasianellus*, which is an altogether differently colored bird. They probably have only a local significance, but the region in question is so poorly represented by the material to which I have had access, that I have not been able to form a definite opinion on this point.

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LIST OF BIRDS ASCERTAINED TO OCCUR WITHIN  
TEN MILES FROM POINT DE MONTS, PROVINCE  
OF QUEBEC, CANADA; BASED CHIEFLY UPON  
THE NOTES OF NAPOLEON A. COMEAU.

BY C. HART MERRIAM, M. D.

Point de Monts is the southward termination of a high rocky promontory that separates the river from the Gulf of St. Lawrence, on the north shore. It is in latitude  $49^{\circ} 19'$  north. The country is well wooded, the forests consisting chiefly of spruce (both white and black) and balsam. Scattered about are a few birches, poplars, cedars, and tamaracks; and on a sandy terrace near the Godbout River is a quantity of the northern scrub pine (*Pinus banksiana*) that here attains a height of thirty and sometimes forty feet. The region is so far north that not only are the oaks and hickories absent, but even the hardy beech and maple do not grow here.

I visited this section of the coast in July, 1881, and again in July, 1882; and with the observations made at these times I have