ANNOTATED LIST OF THE BIRDS OF HARDING COUNTY, NORTHWESTERN SOUTH DAKOTA.¹

BY STEPHEN SARGENT VISHER.

THE following list is based upon three sources of information: (1) Mr. G. B. Grinnell passed through the area from northeast to southwest during July 9-16, 1874, and through the western part August 17-20 with the Custer Expedition to the Black Hills. His report as naturalist, published in Ludlow's 'Report of Reconnaissance of the Black Hills,' contains some statements which certainly apply to our district. (2) Mr. Sal Catron of Camp Crook has lived there on the Little Missouri River since 1883. Continual hunting has made him familiar with the larger birds. (3) As naturalist to the South Dakota Geological and Natural History Survey, it was my privilege to spend practically two months (July 7-September 4) of the summer of 1910 in this area. Of the seventy-odd townships of the county, all but a half dozen of the least interesting were studied. Time did not suffice for the making of a comprehensive collection of the birds, but those of doubtful identity were, as far as practicable, as well as certain others, collected and preserved for the State museum.

Harding County is situated in the extreme northwestern corner of South Dakota. Its north boundary is North Dakota, and its western, Montana. It extends southward almost to the Montana-Wyoming corner. East by west the length is fifty-four miles; its width is fifty-one miles. The range in altitude is about seven hundred feet, from about 3,000 feet to about 3,700 feet. Physiographically the most of the area is a high divide between the Little Missouri River drainage and that east by the Moreau and Grand Rivers to the Missouri. This divide is studded with several groups of flat-topped elevations called buttes or hills which rise about 400 feet above their bases, often with sheer cliffs for most of the height. The forested ones, and hence those of especial interest, are: (1) North and South Cave Hills, which lie in the north central

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VISHER, Birds of Harding County, South Dakota.

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part of the county. The Cave Hills Forest Reserve covers over 23,000 acres. (2) Slim Buttes. This much dissected ridge extends for about twenty-five miles from almost the south line northward, and within a few miles of the eastern edge of the county. The Slim Buttes Reserve covers about 58,000 acres. (3) The East and West Short Pine Hills (Forest Reserve covers 23,000 acres) lie in the southwestern portion of the county. (4) The Long Pine Hills are west of the Little Missouri River and mostly in Montana, but differ from the Short Pines only in being larger and more heavily forested.

The large streams of the area are: (1) The Little Missouri River which flows northward into North Dakota almost across the county and near its western border. It is ordinarily but a small, shallow and swift stream. (2) The North Fork of the Grand River, along the north edge of the area. The South Fork drains most of the county. It flows eastward from near the center of the region. (3) The North Fork of the Moreau River flows east from the Short Pine Hills. The only other flowing streams are one or two short brooks in each of the forested buttes. The larger creeks have permanent water holes. After heavy rains, pools, usually but a few inches deep, are formed in blow-outs on the plains. The year 1910, until August 15, was unusually dry.

The vegetal covering of most of the area is that of a steppe, low 'buffalo' grasses and scattered perennials and annuals. On the 'tables' of the buttes and along the flood plains of the streams a ranker growth of grass is found. Along the streams are groves or individual trees of cottonwood, box-elder, willow or ash, or thickets of buffalo-berry, etc. The largest groves are in the Little Missouri Valley near Camp Crook, which is in the central western part of Trees are almost lacking along the Grand and the county. Moreau Rivers. The cañons of the higher buttes are more or less filled with groves of the deciduous trees mentioned above and thickets of plum, hawthorn, choke-cherry, etc. The slopes of the high buttes are largely covered with western yellow pine (Pinus ponderosa scopulorum). The terraces of the streams, especially in the western part of the county, are covered with sage-brush. The local badlands present thickets of cedar and patches of juniper as well as sage-brush and grease-wood.

The southern half of the county is over sixty miles from a railroad.

Ecologically the nesting birds may be grouped into five or more distinct associations; those of the steppe of the deciduous woods along the streams, of the pine forests, of badlands, and those of bodies of water.

1. The conspicuous nesting birds of the steppe or plains are Upland Plover, Long-billed Curlew, Marsh, Swainson and Sparrow Hawks, Burrowing Owl, Western Nighthawk, Desert Horned Lark, Western Meadowlark, Brewer's Blackbird, Chestnutcollared and McCown's Longspurs, Western Vesper Sparrow, Lark Bunting and Sprague's Pipit.

2. The most numerous birds of the groves of deciduous trees are: Mourning Dove, Downy and Red-headed Woodpeckers, Northern and Red-shafted Flickers, Kingbird, Traill's Flycatcher, Magpie, Crossbill, Goldfinch, Western Lark Sparrow, Arctic Towhee, Black-headed Grosbeak, White-rumped Shrike, Yellow Warbler, Long-tailed Chat, Brown Thrasher, and Robin.

3. In the pine woods are to be found Hairy Woodpecker, Clarke's Nutcracker, Piñon Jay, White-winged Junco, Arctic Towhee, Cedar Waxwing, Audubon's Warbler, Ovenbird, Western House Wren, Red-bellied Nuthatch, Long-tailed Chickadee and Western Bluebird.

4. In badlands, Prairie Falcon, Western Horned Owl, Say's Phœbe, Cliff Swallow and Rock Wren are almost certain to breed.

5. About water, the following were frequently found in midsummer: Blue and Green-winged Teals, Shoveller, Pintail, Spotted and Solitary Sandpipers, Killdeer, Kingfisher, Brewer's Blackbird.

Harding County presents more variety than surrounding counties do, and it is probable that a complete list of its birds would include practically all of those of the southwestern fourth of North Dakota, southeastern Montana, and even northeastern Wyoming.

List of Species

1. Colymbus nigricollis californicus. EARED GREBE.— An occasional migrant along the Little Missouri River.

2. **Podilymbus podiceps.** PIED-BILLED GREBE.— Reported by Catron and others to be a fairly abundant migrant along the larger streams.

3. Gavia immer. LOON.— Mr. Catron has shot a loon on two occasions, flying along the Little Missouri.

4. Larus delawarensis. RING-BILLED GULL.— Taken by Grinnell on the Little Missouri River in July.

5. **Sterna forsteri.** Forster's TERN.^{*1} — A flock of terns, probably of this species, was seen hovering over the Little Missouri River August 30.

6. Hydrochelidon nigra surinamensis. BLACK TERN.— A fairly common migrant through the county.

7. Mergus americanus. AMERICAN MERGANSER.— Taken, infrequently, by Catron.

8. **Merganser serrator.** RED-BREASTED MERGANSER.* — Mr. Catron reports having several times shot them on the Little Missouri River near Camp Crook during migrations. Taken by Grinnell near our area.

9. Lophodytes cucullatus. Hooded MERGANSER.— Occasional migrant (Catron). Grinnell found them nesting near our area.

10. **Anas platyrhynchos.** MALLARD.— Abundant migrant, arriving August 22. Reported by Grinnell, Catron, and others to nest during wet summers.

11. **Mareca americana**. BALD-PATE.— A common migrant (Catron). Grinnell reports that in 1874 they bred near our area.

12. Nettion carolinensis. GREEN-WINGED TEAL.— Breeds wherever possible. Six broods seen, one on an artificial pond not larger than two rods square.

13. Querquedula discors. BLUE-WINGED TEAL.— As abundant as the preceding.

14. **Spatula clypeata.** Shoveller.— Common migrant. One brood of young seen on an artificial pond.

15. **Dafila acuta.** PINTAIL.— Abundant breeder on artificial ponds and along Grand River.

16. **Marila americana.** RED-HEAD.* — Usually fairly abundant during migrations (Catron).

17. Marila vallisineria. CANVAS-BACK.— Uncommon, during migrations (Catron).

18. **Marila marila.** GREATER SCAUP DUCK.* — Abundant migrant along the rivers (Catron).

19. Marila affinis. LESSER SCAUP DUCK.— Very common migrant (Catron).

20. Charitonetta albeola. BUFFLE-HEAD.— Abundant migrant.

21. **Chen hyperborea** (subsp.). SNOW GOOSE.— Not commonly seen, most frequently in spring (Catron and others).

22. Anser albifrons gambeli. WHITE-FRONTED GOOSE.* — Catron reports this to be the most abundant goose; a common migrant.

¹ An asterisk indicates that the species is not mentioned in the author's list of birds of Western South Dakota, published in 'The Auk,' April, 1909, pp. 144-153.

23. **Branta canadensis.** CANADA GOOSE.—Grinnell found this species breeding abundantly along the Little Missouri and other streams in 1874. Catron reports they were fairly common till 1890. Now infrequent and seen only as a migrant.

24. Branta hutchinsi. HUTCHINS'S GOOSE.— Not common during migrations (Catron and others).

25. Botaurus lentiginosus. BITTERN.— A few here last year (1909), which was a wet season.

26. Ardea herodias. GREAT BLUE HERON.— Both Grinnell and Catron reported that this species occasionally breeds along the Little Missouri River.

27. Butorides virescens. GREEN HERON.— One seen July 13.

28. Nycticorax nycticorax nævius. BLACK-CROWNED NIGHT HERON. *— Several young of this year were seen on the Moreau River during the third week of August.

29. Grus americana. WHOOPING CRANE.* — Reported to be not infrequently seen during the spring migration.

30. Grus canadensis. LITTLE BROWN CRANE.¹ — Grinnell states that this species was occasionally seen on the plains, and that its nests were numerous in the pines of the Black Hills. Its present status may be described as "occasionally an abundant migrant."

31. **Rallus virginianus.** VIRGINIA RAIL.— One pair bred in a small reedy patch in the Cave Hills.

32. **Fulica americana.** Coot.— Rare, because of almost total absence of suitable resorts.

33. **Recurvirostra americana**. Avocet.— Fairly abundant in migrations (Catron). Ten were seen flying low on August 23.

34. Micropalama himantopus. STILT SANDPIPER.— Seen on the South Fork of the Grand River August 17. Apparently only a migrant.

35. Gallinago delicata. WILSON'S SNIPE.— Common along the river early in September.

36. Pisobia maculata. PECTORAL SANDPIPER.— A common migrant.

37. **Pisobia bairdi.** BAIRD'S SANDPIPER.— Several were seen on artificial ponds.

38. **Pisobia minutilla.** LEAST SANDPIPER.— Tolerably common in August.

39. **Totanus melanoleucus.** GREATER YELLOW-LEGS.* — A pair was seen July 19 on Little Missouri River. Catron reports that they are regular and not rare migrants.

40. **Totanus flavipes.** YELLOW-LEGS.— One seen with the preceding. Apparently only a migrant, in dry seasons at least.

41. **Helodromas solitarius.** SOLITARY SANDPIPER.— Rare breeder; abundant migrant. Found wherever there is water, in the buttes as well as on the plains.

¹ Omitted by error from previous list.

42. Bartramia longicauda. UPLAND PLOVER.— Breeds sparingly in the drier western half, mainly in draws of foot-hills, but fairly abundantly in the eastern half.

43. **Tryngites subruficollis.** BUFF-BREASTED SANDPIPER.* — Seen several times on the shallow pools in blow-outs after the heavy rain of August 15.

44. Actitis macularia. SPOTTED SANDPIPER.—Breeds sparingly. A common migrant. Seen after July 15 about almost every body of water.

45 **Numenius longirostris.** LONG-BILLED CURLEW.— Breeds. Frequently seen in the sparsely settled western part of the county. No longer found elsewhere.

46. **Oxyechus vociferus.** KILLDEER.— Very abundant breeder on the plains wherever moist ground occurs. Fledgelings observed as late as August 5.

47. Ægialitis meloda. PIPING PLOVER.* — One seen and heard on Boxelder Creek, July 17–18.

48. **Tympanuchus americanus.** PRAIRIE CHICKEN.— Fairly abundant resident in the valleys near the Short Pine Hills. Feeds almost solely on 'buffalo-berries' during their season, August and September.

49. Bonasa umbellus umbelloides. GRAY RUFFED GROUSE.— One seen in the Short Pine Hills. Fairly abundant in the Long Pine Hills.

50. Pediœcetes phasianellus campestris. PRAIRIE SHARP-TAILED GROUSE.— Very abundant resident along the permanent streams and in the park-like area at the top of the buttes and near their base. Broods this year contained about twelve. One nest was found in a clump of 'buck-bush' (*Symphoricarpus*). It was only a slight hollow. The stomach of a bird of the year, shot August 14 on the mesa of the South Cave Hills, contained 200 flying ants, 4 small (shorthorned) grasshoppers, 1 small beetle (Chrysomelidæ), 1 small caterpillar, 25 black currants, 50 pods of wild flax.

51. Centrocercus urophasianus. SAGE HEN.— Abundant resident in the areas covered with the scrub sage-bush (Artemisia tridentata), where water is not far distant; therefore mainly found on the terraces in the stream valleys. Eight live tapeworms, the largest a foot long, were taken from the body cavity of an adult female which, though in good health, was solitary.

52. Zenaidura macroura carolinensis. MOURNING DOVE.— Though a common breeder in the groves along the streams it is but rarely seen in driving about the country.

53. **Carthartes aura septentrionalis.** TURKEY VULTURE.— Tolerably abundant summer resident about the higher buttes. Especially abundant about Slim Buttes, where thirty or forty were found roosting together in a large pine tree during the last week of August.

54. Circus hudsonius. MARSH HAWK.— A common summer resident on the plains.

55. Astur atricapillus. GOSHAWK.— One seen in the Cave Hills, August 12.

56. Accipiter velox. SHARP-SHINNED HAWK.— Common during the autumn migration, which commenced August 22.

57. Accipiter cooperi. COOPER'S HAWK.— Several seen early in September along the Little Missouri Valley.

58. Buteo borealis calurus. WESTERN RED-TAIL.— A common summer resident throughout the area.

59. Buteo borealis krideri. KRIDER'S HAWK.— Two were observed, apparently near their nest, at the cliff of the Cave Hills.

60. Buteo swainsoni. Swainson's Hawk.— Abundant summer resident.

61. Archibuteo lagopus sancti-johannis. ROUGH-LEGGED HAWK. Seen July 14, and three or four times during the last of August and the first of September.

62. Archibuteo ferrugineus. FERRUGINOUS ROUGH-LEG.— Quite abundant on the plains. Nests in the buttes. Especially numerous after August 20.

63. Aquila chrysaëtos. GOLDEN EAGLE.— A common resident about the high buttes. Aeries were seen in the Cave Hills and in the Short Pine Hills.

64. Haliæetus leucocephalus. BALD EAGLE.— Rare. One seen July 20 on the Little Missouri.

65. Falco mexicanus. PRAIRIE FALCON.— Abundant summer resident in the badlands and elsewhere where clay cliffs occur.

66. Falco peregrinus anatum. DUCK HAWK.— Rare. Seen twice.

67. Falco columbarius. PIGEON HAWK.— Rare autumn migrant along the Little Missouri Valley.

68. Falco sparverius. SPARROW HAWK.— Abundant summer resident on the plains.

69. **Pandion haliaëtus carolinensis.** OSPREY.— One seen September 2 along the Little Missouri River.

70. Bubo virginianus pallescens. WESTERN HORNED OWL.— Abundant resident in the badlands and about the steeper buttes.

71. Asio flammeus. SHORT-EARED OWL.—Grinnell reports that they saw several along the river bottom of the Little Missouri.

72. Spectyto cunicularia hypogæa. BURROWING OWL.— Abundant in some of the prairie-dog towns.

73. Coccyzus erythrophthalmus. BLACK-BILLED CUCKOO.— One observed July 11 in the Little Missouri Valley within six miles of the Montana line, and a short distance north of Harding County, in North Dakota.

74. Ceryle alcyon. KINGFISHER.— A few pairs nested along the Little Missouri River, and one on the largest stream of Cave Hills.

75. **Dryobates villosus.** HAIRY WOODPECKER.— Rare summer resident in the forested buttes and along the Little Missouri near Camp Crook.

76. **Dryobates pubescens medianus.** DOWNY WOODPECKER.— Much more frequently seen than the preceding. 77. **Melanerpes erythrocephalus.** RED-HEADED WOODPECKER.— An abundant summer resident in the groves of the Little Missouri Valley, and sparingly in the buttes.

78. **Colaptes auratus luteus.** NORTHERN FLICKER.— Breeds wherever trees occur; much more frequent east of the Little Missouri than west of it.

79. Colaptes cafer collaris. RED-SHAFTED FLICKER.— A common summer resident in and west of the Little Missouri Valley. Rare to the eastward.

80. Phalænoptilus nuttalli. NUTTALL'S POORWILL.— A frequent breeder in the high buttes. One was seen on the mesa of Cave Hills, one in badlands in Slim Buttes, and a third was flushed in an arroya at the base of Slim Buttes. They were heard each night during the two weeks spent about the Cave Hills.

81. Chordeiles virginianus henryi. WESTERN NIGHTHAWK.— Common breeder in the plains.

82. **Aëronautes melanoleucus.** WHITE-THROATED SWIFT.— Several pairs nested on the high castellated buttes of Slim Buttes and a few at the north end of the East Short Pine Hills.

83. **Tyrannus tyrannus.** KINGBIRD.— Nests sparingly, usually in box-elder trees, wherever trees occur.

84. **Tyrannus verticalis.** ARKANSAS KINGBIRD.— Rare in the area under discussion. One pair nested in the foothills of the Cave Hills and two more in the extreme eastern and southeastern portions of the county. Their favorite nesting site, a small tree near a farm house on the plains, is almost lacking as yet.

85. Sayornis saya. SAY'S PHEEE.— Abundant summer resident wherever cliffs occur. Therefore most numerous in the badlands.

86. **Myiochanes richardsoni.** Western Wood Pewee.— Nests rarely in the forested parts of the high buttes.

87. Nuttallornis borealis. OLIVE-SIDED FLYCATCHER.— One was seen in Slim Buttes August 20.

88. **Empidonax trailli.** TRAILL'S FLYCATCHER.— Nests, not frequently, along the Little Missouri and in cañons of the forested buttes.

89. Empidonax minimus. LEAST FLYCATCHER.* -- A pair nested in a grove in a valley in Cave Hills.

90. Otocoris alpestris leucolæma. DESERT HORNED LARK.— One of the four most numerous residents of the plains. A nest with four eggs was found July 15. We estimated that there were perhaps twenty-five adults to each section (640 acres) of land.

91. **Pica pica hudsonia.** MAGPIE. — Common resident in groves in the Little Missouri Valley and in cañons of the buttes which are filled with deciduous trees.

92. **Corvus corax principalis.** RAVEN.— Reported by Catron to be abundant at Camp Crook during the very coldest weather only. "Ravens were seen almost every day on the way to the Black Hills. They had bred on many of the lofty buttes that we passed." (Grinnell.)

93. Corvus brachyrhynchos. CROW.— A common migrant. This year a few nested near Camp Crook in the Little Missouri Valley. This is reported as exceptional.

94. Nucifraga columbiana. CLARKE'S NUTCRACKER.— Quite abundant summer resident in the forested Short Pine Hills.

95. **Cyanocephalus cyanocephalus.** PIÑON JAY.— Abundant breeder in the North Cave Hills. Not seen elsewhere in Harding County.

96. Dolichonyx oryzivorus. BOBOLINK.— Rare summer resident along the Moreau River. (Three were seen September 15 two hundred miles northwest of the area under discussion.)

97. **Molothrus ater.** COWBIRD. — Grinnell found this species numerous. We found it very rare.

98. **Xanthocephalus xanthocephalus.** YELLOW-HEADED BLACK-BIRD. — An occasional migrant only, because of absence of reedy marshes.

99. **Agelaius phœniceus fortis.** THICK-BILLED RED-WING.—A common migrant. A few pairs nested in a tiny marsh in the North Cave Hills.

100. **Sturnella neglecta.** WESTERN MEADOWLARK — Abundant nester on the plains and on the mesas of the buttes. We estimated that there were about ten pairs to each section of land.

101. Icterus bullocki. BULLOCK'S ORIOLE.— One pair was found nesting in a grove in the Little Missouri Valley July 20.

102. **Euphagus cyanocephalus.** BREWER'S BLACKBIRD.— Abundant breeder. Fifty or so fly around together after the breeding season. Ecologically they replace the Cowbird, the Redwing, the Grackle, and the Yellowhead. That is to say, they inhabit groves, etc., much as do the Grackles; they follow the plow, etc., as do the Yellow-heads; they hang about streams as do the Redwings; they follow the cattle as do the Cowbirds; and in addition, they wade in the water as do Snipe.

103. Loxia curvirostra minor. CROSSBILL.— A frequent summer resident wherever trees are plentiful. After the breeding season they fly about in flocks of twenty or thirty.

104. Astragalinus tristis. GOLDFINCH.— Not uncommon during the summer.

105. **Spinus pinus.** PINE SISKIN.— A small flock was seen early in September.

106. **Passer domesticus.** ENGLISH SPARROW.— Abundant in the only large town, Camp Crook, even when there was no railroad nearer than 80 miles.

107. **Calcarius pictus.** SMITH'S LONGSPUR.— Probably seen twice during July.

108. **Calcarius ornatus.** CHESTNUT-COLLARED LONGSPUR.— Abundant breeder on the plains of the eastern part of the county; less numerous westward.

109. **Rhynchophanes mccowni.** McCown's Longspur.— Abundant on the plains. This and the preceding probably outnumber the Horned Larks. A nest containing young just hatched was found July 16.

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110. **Poœcetes gramineus confinis.** WESTERN VESPER SPARROW.— A common summer resident on the plains. Very frequently seen during the first half of September.

111. **Passerculus sandwichensis alaudinus.** WESTERN SAVANNAH SPARROW.* — Rare migrant, seen September 1–6.

112. **Ammodramus bairdi**. BAIRD'S SPARROW.— Breeds rarely in the moister draws of the steppe. Common as a migrant towards the close of August and early in September. Collected.

113. **Ammodramus savannarum bimaculatus.** WESTERN GRASS-HOPPER SPARROW.— Nests in the moister blue-stem swales of the eastern part of the area.

114. **Passerherbulus henslowi occidentalis.** WESTERN HENSLOW'S SPARROW.* — One seen September 4.

115. Chondestes grammacus strigatus. WESTERN LARK SPAR-ROW.— A common breeder in the groves along the streams. They left the region about August.

116. **Zonotrichia albicollis.** WHITE-THROATED SPARROW.— A few were seen several times early in September.

117. **Spizella passerina arizonæ.** WESTERN CHIPPING SPARROW.— Rare summer resident along the Little Missouri. Quite numerous in the Slim Buttes during the last half of August.

118. **Spizella pallida.** CLAY-COLORED SPARROW.— Seen once in July on the plains.

119. **Spizella pusilla arenacea.** WESTERN FIELD SPARROW.* — Not uncommon on the foothills of the higher buttes, where suitable situations occur — copses and grass. Occasional elsewhere.

120. Junco aikeni. WHITE-WINGED JUNCO.— Common nester in the Short and Long Pine Hills. Fledgelings observed July 20 in the Long Pines.

121. **Melospiza melodia.** Song SparRow.— Nests in each of the suitable localities about the buttes. Quite common as a migrant after August 21.

122. **Melospiza georgiana.** Swamp Sparrow.— One seen August 22 on the Moreau River.

123. **Pipilo maculatus.** ARCTIC TOWHEE.— Abundant breeder wherever woods occur.

124. Zamelodia melanocephala. BLACK-HEADED GROSBEAK.— Abundant nester in those parts of the Little Missouri Valley which are well filled with cottonwood groves. One was observed to sing while flying, a song much resembling that of the Western Mockingbird.

125. **Passerina amœna.** LAZULI BUNTING.— A rare breeder in the forested buttes.

126. **Calamospiza melanocorys.** LARK BUNTING.— One of the most numerous summer residents of the plain. Most of the males have moulted by August first, when migration is under way. However, a mother was observed to feed a fledgeling as late as August 31.

127. **Piranga ludoviciana.** WESTERN TANAGER.— One seen August 27 in the Short Pine Hills.

128. **Petrochelidon lunifrons.** CLIFF SWALLOW.— Abundant nester on the cliffs of badlands and along streams wherever such cliffs occur. The only swallow seen frequently.

129. **Hirundo erythrogastra**. BARN SWALLOW.— A pair or two nest about the sheds of each of the old ranches, and in Camp Crook. They do not wander far from their nests.

130. **Riparia riparia**. BANK SWALLOW.— One small colony is established on the North Fork of the Grand River.

131. **Bombycilla garrula**. BOHEMIAN WAXWING.— A large flock is reported to have spent several days in the Short Pine Hills during February, 1910.

132. **Bombycilla cedrorum.** CEDAR WAXWING.— A common summer resident in the pine-forested parts of the buttes.

133. Lanius ludovicianus excubitorides. WHITE-RUMPED SHRIKE. — Abundant summer resident of the plains. Nests in the scattered trees which occur along the intermittant "creeks."

134. **Vireo olivaceus.** RED-EYED VIREO.* — Not a rare nester in the wooded eanons of Slim Buttes.

135. **Vireosylva gilva swainsoni.** WESTERN WARBLING VIREO.---Common during the summer in the woody areas.

136. **Dendroica æstiva.** YELLOW WARBLER.— Nests commonly in the cañons along the brooks of the buttes, and along the Little Missouri.

137. **Dendroica auduboni.** AUDUBON'S WARBLER.— Nests in the pine forests of the higher buttes; fairly common.

138. Seiurus aurocapillus. OVENBIRD.¹ — Noted, not rarely, in the Short and Long Pine Hills. Fledgelings observed in the latter July 20.

139. Seiurus noveboracensis notabilis. GRINNELL'S WATER-THRUSH.* — Three seen along the river early in September.

140. **Geothlypis trichas occidentalis.** Western Yellow-throat. — Breeds commonly along the permanent streams.

141. Icteria virens longicauda. LONG-TAILED CHAT.— Nested abundantly in the most wooded portions of the Little Missouri flood plain.

142. Wilsonia pusilla. WILSON'S WARBLER.* — An abundant migrant, arriving August 19.

143. **Anthus spraguei.** SPRAGUE'S PIPIT.— Common breeder on the grassy plains of the northeastern part of the county. Abundant migrant. The call, *ché*, *ché*, *is* then frequently heard.

144. **Dumetella carolinensis.** CATBIRD.— Not common during the summer, in the groves along the streams.

145. **Toxostoma rufum.** BROWN THRASHER.— More numerous than the preceding, in similar situations.

146. Salpinctes obsoletus. Rock WREN.--- Breeds abundantly

¹ Omitted by error from previous list.

wherever steep slopes with crevices occur. Hence especially noticeable in badlands and on the cliffs of the steep-sided buttes.

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147. **Troglodytes aëdon parkmani.** WESTERN HOUSE WREN.— Nests abundantly in the more wooded portions of the Little Missouri Valley and in the pine forests of the high buttes.

148. Sitta canadensis. RED-BELLIED NUTHATCH.— A common resident in the pines of the buttes.

149. **Penthestes atricapillus septentrionalis.** LONG-TAILED CHICK-ADEE.— Breeds abundantly in the forests of the buttes. Common later in the woods elsewhere.

150. Hylocichla ustulata swainsoni. OLIVE-BACKED THRUSH.— Rare migrant.

151. Hylocichla fuscescens salicicola. WILLOW THRUSH.* -- Not uncommon along the Little Missouri, August 27-September 3.

152. **Planesticus migratorius.** ROBIN.— Breeds tolerably commonly in the buttes and along the Little Missouri River.

153. Sialia sialis. BLUEBIRD.— Common breeder in the pines of the higher buttes.

154. **Sialia currucoides.** MOUNTAIN BLUEBIRD.— A brood was seen in the Short Pine Hills. Grinnell also reports seeing a brood of young there in 1874.

DOUBLE-CRESTED CORMORANTS BREEDING IN CEN-TRAL ILLINOIS.¹

BY FRANK SMITH.

THE Double-crested Cormorant (*Phalacrocorax auritus*) is well known in Illinois as an abundant migrant along the Illinois River bottomlands in both spring and autumn, when flocks of several hundred may sometimes be seen for periods of several weeks taking heavy toll from the fish life of the region.

The southern limit of their breeding range east of the Mississippi River seems to be not very well known. Kumlien and Hollister in 'The Birds of Wisconsin' (1903) suggest that they probably nest in certain counties in the northern part of that State and cite

¹Contributions from the Zoölogical Laboratory, University of Illinois, under the direction of Henry B. Ward, No. 6.