

in quick succession until the woods resound. And then the Hermits — from all sides their songs come, pure and bubbling, not slow and bell-like as the Wood Thrush nor fast and rolling like the Veery, but a perfect blending of bell tones and flute-like trills, soft or loud with the bird's varying mood. The dusk deepens, and the chorus increases till all the shadowy forest is echoing with deliciously clear music. Then, as darkness falls, they hush one by one; the sky fades over the western mountain; a Great Blue Heron flaps heavily up the lake and over the now silent forest, and far up the valley the "Who-hoo-hoo-ah!" of the Barred Owl floats down to us, mellowed by distance, telling that night has come.

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NOTES ON THE WINTER BIRDS OF SAN ANTONIO, TEXAS.

BY LUDLOW GRISCOM.

FROM December 15, 1917, to March 7, 1918, the writer was stationed at Camp Stanley, Leon Springs, Bexar Co., Texas. As much spare time as possible was devoted to observing birds, particularly week-ends of course, but incidental work was possible throughout the week. The life was an absolutely outdoor one in unsettled country. Field glasses were always a proper part of an officer's uniform, and perhaps I received much more credit for zeal in examining the country for tactical problems than I deserved!

The vicinity of Camp Stanley itself was very poor for birds, the barren rocky hillsides with but scant growth upon them, satisfying the requirements of a very limited number of species. The San Antonio River south of the city was a much better place. Several trips were made to the Medina Dam about twenty-five miles to the west. The dam has made a lake over ten miles long by one-half mile wide, where waterfowl were abundant. The hills here were covered with juniper and bayberry, and the bird-life as a result differed markedly.

In 'The Auk,' for 1892, Attwater gave a list of the birds from the vicinity of San Antonio with mostly very brief and general annotations. A list of the breeding birds for all of Bexar Co. is given by Messrs. Quillin and Holleman in 'The Condor' for 1918. Lacey published a very complete list for the vicinity of Kerrville, about fifty miles northwest of San Antonio (Auk, 1911, p. 200), and Austin Paul Smith wrote 'Additions to the Avifauna of Kerr Co., Texas' in 'The Auk,' 1916. A few other short notes have been published, but those are not given as they do not bear on the birds in this article.¹

The chief excuse for publishing these notes is the discrepancy in the accounts of Attwater and Lacey as to the status of various species, where the difference in the kind of country and the fifty miles ought not to count. As this is usually due to the lack of adequate observation by a sufficient number of people at nearby contiguous stations, my notes are given as supplementary information. It is also, perhaps, worth while to record the effect upon the bird-life of the extreme severity of the winter of 1917-18, which a good many people both in and out of the military service, will remember for years to come. The number of military camps too must have interfered with bird-life, and undoubtedly aeroplanes were responsible for the scarcity of many species such as vultures and hawks. In the list which follows all actual or apparent discrepancies are pointed out, as well as new records. Even the commonest birds have been included, so as to give the future observer a definite idea of what he may expect to find.

1. **Podilymbus podiceps.** PIED-BILLED GREBE.—Two seen at Medina Dam, December 30, 1917. Not mentioned by Attwater as a winter resident. Called an occasional winter visitor on the Guadeloupe River by Lacey.

2. **Mergus serrator.** RED-BREASTED MERGANSER.—A flock of five noted at the Medina Dam, December 30. Another species not mentioned by Attwater, but called an occasional winter visitant by Lacey.

3. **Anas platyrhynchos.** MALLARD.—Rather uncommon on the

¹ The first paper dealing with the birds of this region is by H. E. Dresser and appeared in 'The Ibis' for August and October, 1865 and January, 1866. It is especially interesting historically as Mr. Dresser stopped with Dr. A. L. Heermann who was living at San Antonio at the time and who contributed a number of notes to the paper. [Ed.]

Medina Lake. Attwater calls all the ducks migrants, and Lacey calls them all winter residents, either occasional or not uncommon.

4. **Mareca americana.** BALDPATE.— A drake on Medina Lake with Mallards December 30. According to Attwater a migrant, according to Lacey not uncommon in winter.

5. **Nettion carolinense.** GREEN-WINGED TEAL.— The scarcest of the Anatinae on Medina Lake.

6. **Spatula clypeata.** SHOVELLER. Flock of six December 30 on Medina Lake.

7. **Dafila acuta.** PINTAIL.— The commonest of the Anatinae and the tamest. A stray bird seen January 13 on the San Antonio River south of the city at Hot Wells.

8. **Marila americana.** REDHEAD.— Common on Medina Lake. It is not recorded by Lacey, and Attwater calls it a migrant.

9. **Marila valisineria.** CANVASBACK.— In slightly greater numbers than the Redhead. Not recorded by Lacey. Attwater gives it as less common as a migrant than the last.

10. **Marila affinis.** LESSER SCAUP.— One drake seen January 6. A rare migrant (Attwater); not uncommon in winter (Lacey).

11. **Marila collaris.** RING-NECKED DUCK.— The commonest and tamest duck on Medina Lake. Not recorded by Lacey; a tolerably common migrant (Attwater).

12. **Clangula clangula americana.** WHISTLER.— This is one of the species the occurrence of which is probably due to the severe cold weather. Three drakes seen on January 6, at the extreme upper end of Medina Lake. Previously unrecorded.

13. **Ardea herodias** subsp.? GREAT BLUE HERON. One or two seen on each visit to the Dam. Not previously recorded in winter.

14. **Fulica americana.** COOT. Very abundant on Medina Lake. Not mentioned previously as occurring in winter.

15. **Oxyechus vociferus.** KILLDEER. A few birds in all types of country, their numbers apparently unaffected by the severe weather.

16. **Zenaidura macroura carolinensis.** MOURNING DOVE.— A few birds all winter.

17. **Scardafella inca.** INCA DOVE.— Not uncommon on the outskirts of San Antonio right through the winter. Attwater regarded it as very rare, giving only one record. All later writers agree in its being a common resident, so it must have extended its range northward. As it is extraordinarily tame and confiding, and a dooryard bird, it seems improbable that Attwater could have overlooked it.

18. **Cathartes aura septentrionalis.** TURKEY VULTURE.— Decidedly rare. A few birds seen in the city of San Antonio, and none after the cold wave of January 10.

19. **Catharista urubu.** BLACK VULTURE.— Decidedly uncommon, except at Medina Lake, where it was quite plentiful.

20. **Circus hudsonius.** MARSH HAWK.—A few birds seen in the flat country near San Antonio.

21. **Accipiter velox.** SHARP-SHINNED HAWK.—Only one bird seen.

22. **Buteo borealis** subsp.? RED-TAILED HAWK.—A pair at Leon Springs, and another at Medina Dam.

23. **Falco sparverius** subsp.? A few birds in all types of country.

24. **Polyborus cheriway.** AUDUBON'S CARACARA.—Attwater gives this species as a resident. In spite of this it was a shock to see one in nippy weather on December 29, looking very miserable and fluffed out. None seen later.

25. **Geococcyx californianus.** ROADRUNNER.—Given as a common resident by everybody, but I saw only one. Non-ornithological natives informed me that it had greatly decreased in the more settled country.

26. **Ceryle a. alcyon.** BELTED KINGFISHER.—Seen on each trip to the dam, and along the San Antonio River south of the city. Not given by Attwater as occurring in winter, but recorded by Lacey as a resident.

27. **Dryobates scalaris bairdi.** TEXAS WOODPECKER.—Fairly common.

28. **Sphyrapicus v. varius.** YELLOW-BELLIED SAPSUCKER.—The commonest woodpecker.

29. **Melanerpes f. formicivorus.** ANT-EATING WOODPECKER.—According to Lacey common in winter and breeds near Kerrville, the most eastern record. One bird seen December 15 at Camp Stanley, considerably to the southeast.

30. **Centurus aurifrons.** GOLDEN-FRONTED WOODPECKER.—Common along the San Antonio River south of the city. Almost indistinguishable in color, habits and notes from its eastern relative.

31. **Colaptes auratus** subsp.? FLICKER.—One positively identified at Camp Stanley December 27, and another at Hot Wells, January 1. According to Attwater regular in winter. Unrecorded by Lacey.

32. **Colaptes cafer collaris.** RED-SHAFTED FLICKER.—Common.

33. **Sayornis phoebe.** PHEBE.—Common, and apparently unaffected by the cold weather. Present even at Camp Stanley, nowhere near any water.

34. **Molothrus ater** subsp.? COWBIRD.—A large flock of several hundred birds around the stables at Camp Stanley. Considered common in winter by Attwater and rare by Lacey.

35. **Agelaius phoeniceus** subsp.? RED-WINGED BLACKBIRD. In spite of previous writers only one bird seen with Cowbirds around the cavalry stables at Camp Stanley December 27. It could not be found later.

36. **Sturnella neglecta.** WESTERN MEADOWLARK.—Abundant, singing on warm days. In spite of careful effort I could not find the eastern bird. There is no difficulty in telling them apart, the notes are so diagnostic.

37. **Euphagus cyanocephalus.** BREWER'S BLACKBIRD.—Common. It seems curious that it is unrecorded from the vicinity of Kerrville, when

it is so common at Leon Springs, even farther east and in the same type of hilly country.

38. **Megaquiscalus major macrourus.** GREAT-TAILED GRACKLE.—A few in the city of San Antonio. Another species which violated previous experience in a warmer climate.

39. **Calcarius ornatus.** CHESTNUT-COLLARED LONGSPUR.—A flock of these birds appeared on the parade ground at Camp Stanley just after the severe cold wave of January 10. They were so tame that I could walk straight up to them within six feet before they would bother to flit to one side. As soon as the weather moderated they disappeared.

40. **Poocetes gramineus confinis.** WESTERN VESPER SPARROW.—A common roadside bird in the flat country near San Antonio.

41. **Passerculus sandwichensis alaudinus.** WESTERN SAVANNAH SPARROW.—Same as the last.

42. **Chondestes grammacus strigatus.** WESTERN LARK SPARROW.—Very common. The only species that increased after the cold weather, which does not agree with Lacey's experience.

43. **Zonotrichia querula.** HARRIS' SPARROW.—A few of these distinguished sparrows consorted with White-crowns at Camp Stanley, until the cold weather, when they disappeared.

44. **Zonotrichia l. leucophrys.** WHITE-CROWNED SPARROW.—The most abundant species until cold weather at Camp Stanley, but a few remained all winter. Common around San Antonio. Many birds were in full song on warm days throughout the winter.

45. **Zonotrichia albicollis.** WHITE-THROATED SPARROW.—Two birds seen at Camp Stanley December 27. Lacey gives only one record for Kerrville, while Attwater calls it a common winter resident around San Antonio, though I could not find it there in ideal country. Smith also gives a winter record.

46. **Spizella passerina** subsp.? CHIPPING SPARROW.—A single bird seen with other sparrows on December 27 at Camp Stanley. Lacey calls the eastern bird common in winter, while Attwater only records the western form from San Antonio at the same season! The species did not winter at the Medina Dam, but was present March 6. They were found by following up a song which was quite unrecognizable, and I well recall my astonishment when the singers turned out to be Chipping Sparrows in spring plumage, so tame and confiding that it was impossible to make them any of the more desirable western species.

47. **Spizella pusilla (arenacea?)** FIELD SPARROW.—Common until the severe cold weather.

48. **Junco hyemalis** subsp? JUNCO.—Fairly common. Most emphatically not the eastern bird, although this form is the only one given. Judging by sight identification alone all birds seen were *montanus*. There was no difficulty in noticing the paler gray, the larger amount of white in the tail and the amount of pinkish on the sides. Even the notes seemed a little different.

49. **Amphispiza bilineata.** BLACK-THROATED SPARROW.—Scarce at Camp Stanley, disappearing with the first cold weather. Not noted anywhere else.

50. **Aimophila ruficeps eremœca.** ROCK SPARROW.—Another species which apparently disappeared after the cold weather.

51. **Melospiza melodia** subsp.? SONG SPARROW.—Rather uncommon, disappearing after the cold weather. According to Smith, the prevailing form is *juddi*. All I can say is that my birds looked a little "off color."

52. **Pipilo maculatus arcticus.** ARCTIC TOWHEE.—Common.

53. **Cardinalis cardinalis canicaudus.** GRAY-TAILED CARDINAL.—Common. The female is easily distinguishable in life from the eastern bird.

54. **Bombycilla cedrorum.** CEDAR WAXWING.—Abundant at Medina Dam; an occasional flock elsewhere.

55. **Lanius ludovicianus excubitorides.** WHITE-RUMPED SHRIKE.—Rather common.

56. **Vermivora c. celata.** ORANGE-CROWNED WARBLER.—A single bird seen January 1, south of San Antonio. Considered rare in winter by previous writers.

57. **Dendroica coronata.** MYRTLE WARBLER.—Common around San Antonio and the Medina Dam. Only one noted at Camp Stanley, where there is no suitable country.

58. **Anthus rubescens.** PIPIT.—Common until the cold weather, after which it was found at San Antonio only.

59. **Mimus polyglottos leucopterus.** WESTERN MOCKINGBIRD.—Common.

60. **Toxostoma c. curvirostre.** CURVE-BILLED THRASHER.—Two very tame and miserable looking birds seen at Medina Dam January 5. Although unrecorded by Attwater, Quillin and Holleman give it as a common summer resident. According to the A. O. U. 'Check-List,' there is no particular reason why the species should be in this part of Texas at all.

61. **Salpinctes obsoletus.** ROCK WREN.—Noted only at Medina Dam.

62. **Thryothorus l. ludovicianus.** CAROLINA WREN.—Common.

63. **Thryomanes bewicki (cryptus?).** TEXAS WREN.—Common.

64. **Nannus h. hyemalis.** WINTER WREN.—A single bird seen January 1 along the San Antonio River, south of the city. Apparently the only record.

65. **Bœolophus atricristatus sennetti.** Sennett's Titmouse.—Common.

66. **Penthestes carolinensis agilis.** PLUMBEOUS CHICKADEE.—This species did not appear until February 8. Early in March it was common along the San Antonio River.

67. **Regulus s. satrapa.** GOLDEN-CROWNED KINGLET.—A single bird seen January 1 near San Antonio. Lacey calls it uncommon in winter,

and Smith commoner than *calendula* in Kerr Co. Attwater calls it a common migrant at San Antonio.

68. **Regulus c. calendula.** RUBY-CROWNED KINGLET.—Common, except in the arid country around Camp Stanley where it was a surprise to see it at all.

69. **Poliottila c. cærulea.** BLUE-GRAY GNATCATCHER.—One bird noted January 1 at Hot Wells, south of San Antonio.

70. **Hylocichla guttata** subsp.? HERMIT THRUSH.—Rather common, except at Camp Stanley where it was absent.

71. **Planesticus m. migratorius.** ROBIN. Rather uncommon, except at Medina Dam, where it was abundant in the juniper and bayberry.

72. **Sialia s. sialis.** BLUEBIRD.—Not common except at Medina Dam.

73. **Sialia currucoides.** MOUNTAIN BLUEBIRD.—A species whose appearance in this region was probably due to cold weather. Three birds seen December 17, and a male with *sialis* December 27, both at Camp Stanley. Lacey recorded it in only three winters in twenty-nine years around Kerrville considerably farther north and west. It is apparently previously unrecorded near San Antonio.

Amer. Museum Nat. Hist., N. Y.

THE OCCULT SENSES IN BIRDS.¹

BY HERBERT H. BECK.

THAT animals below man, in the accepted biological line, have retained in efficient form much that has been greatly reduced or nearly lost in the process of developing Nature's master product — the human mind — is a fact of common knowledge. The senses of sight, smell and hearing in man are almost rudimentary when compared with the same senses as developed in the hawk, the setter dog, and the fox.

It is not so generally recognized, though none the less perhaps a fact, that certain senses widely or selectively a part of animal life, are absolutely gone in man. So thoroughly are these senses atrophied or lacking in the human mind that man with all his highly

¹ Presented before the Delaware Valley Ornithological Club.