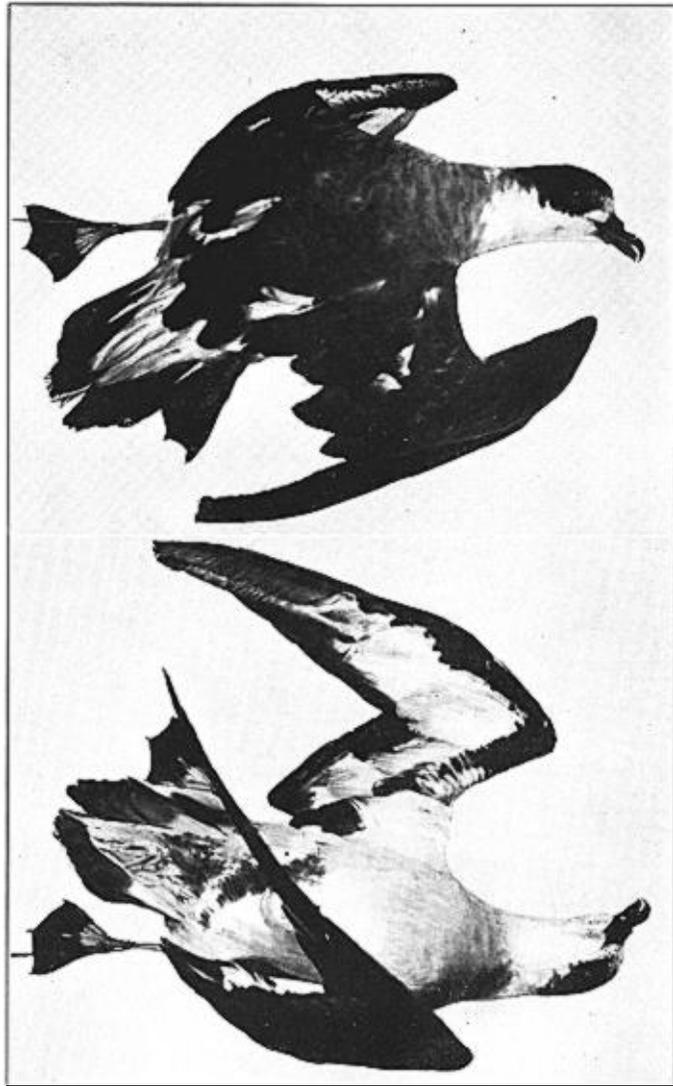


BIRDS OBSERVED IN MONTGOMERY COUNTY,  
VIRGINIA.

BY ELLISON A. SMYTH, JR.

SINCE Dr. Rives published his 'Catalogue of the Birds of the Virginias' in 1890, I know of no general list for Virginia or any county thereof. My own observations in Montgomery County were commenced in July, 1891. For the past five years, through pressure of college duties, I have been unable to get regularly into the woods during the migrations, so that, while these notes cover a period of twenty-one years, the observations upon which they are based are only comparatively close from 1891 to 1906. Dr. Rives lists 305 species as positively known within the limits of Virginia. In this one county of Montgomery I have authentic personal records of 194 species. It will be noted that in rare and unique occurrences, or where doubt might have existed as to identification, the specimen was secured and is in my collection. Exception to this occurs in one or two cases where identification was absolute and possession of the bird would have been superfluous slaughter. My observations have been made mostly within a radius of eight or ten miles of the town of Blacksburg, and many of my rarer records are from the campus of the Virginia Polytechnic Institute.

The peculiar position of Blacksburg doubtless accounts for many unexpected occurrences of eastern and western forms. The town is about 200 miles west of the Atlantic coast, and is situated in the Alleghany system, in a valley 2170 feet above sea-level. The valley, whose general trend is northeast and southwest, is largely Ordovician limestone. To the west, a low range called Brush Mountain, and to the southeast another range known as Price Mountain, are of the Lower Carboniferous. From Price Mountain, a line of hills runs to the northeast of the town, forming the natural watershed of the region; to the north of these hills the drainage is to Chesapeake Bay, and the Atlantic Ocean through Roanoke River, and to the south and west to the Gulf of Mexico, New River being a tributary of the Ohio.



*Æstrelata hasitata*, BLACK-CAPPED PETREL.

Taken August 30, 1893, at Blacksburg, Va. Photographed immediately after capture.

While most of the fauna is Carolinian and Alleghanian, a Canadian outcropping occurs, with a few interesting western forms, and this is also well illustrated in the insect life. Only occasionally in the winter is a temperature of zero reached, though on one occasion the record was  $-15^{\circ}$ . The snow fall is comparatively light, there being less than in many nearby localities of lower altitude and farther south.

I have attempted as far as possible to note the earliest and latest occurrence of migrants. Necessarily this is incomplete and is only approximate. Some years I was able to be in the woods at least a part of nearly every day during the migrations; other years sometimes a week or more would elapse between my woodland visits, and I would have to depend on campus observations. The different kinds of ground to be covered also made it impossible to keep impartial records. In the neighborhood are rocky, steep ravines, pine-clad or with rhododendron and kalmia growth on either side; open oak woods; and in the flat broad valley pasture land, grassy or bramble-covered: thus the records of one observer must be very defective, even when extended over a long period.

Several of my records are new to Virginia; one, Franklin's Gull, was, I believe, the first record east of the Mississippi; and another, the Black-capped Petrel, was the third record for the United States. This latter is referred to in Newton's Dictionary of Birds, in a foot-note on page 709.

The large number of ducks — fifteen species — and other water birds observed, is interesting, considering the locality, and the absence of any large body of water or even stream in the immediate vicinity. The connection of New River with the Mississippi seems too remote to explain this, though it is possible that estrays from the Atlantic seaboard might follow up the Roanoke River, and from the Gulf and Mississippi, the New River; and as Blacksburg is almost on the watershed between the two, unusual visitors might thus occur. It is, however, more likely that the lines of migration to and from the northwest have more to do with this.

The town of Blacksburg, and the Virginia Polytechnic Institute are at the head of an extensive, elevated valley, through which several small streams converge, uniting to form a larger, which finally empties into the New River. At intervals, along these

streams, are marshy bottoms, which used to be quite extensive, before they were drained, and which attract snipe in the migrations, and other wading and marsh-loving birds. Below the college campus, an artificial causeway, acting as a dam, allows the flooding during the fall, winter, and early spring, of about two acres of meadow, for an ice-pond, and in spite of much passing of vehicles over the causeway, the pond proves very attractive to water-fowl during the migrations. I have killed fifteen species of ducks, two of grebes, three of gulls, and one tern upon this pond, and have twice seen Canada Geese. Bald Knob Mountain, one of the higher peaks in the State is within fifteen miles of the town; and is remarkable for the extensive lake almost at its summit. The surrounding region is quite wild.

As before indicated, the town is west of the Blue Ridge Mountains, and is near the summit of the Alleghany. It seems to be in the line of the autumnal migration for many warblers, and the spring migration for certain ducks, Nelson's Sparrow and other birds, as the list will more clearly point out.

With these introductory remarks, the list is presented as follows.

1. **Colymbus auritus.** HORNED GREBE.— A rare winter and spring visitor. Only five records, all on the college ice-pond; one in November, three in December and one in April; the latter specimen showing traces of the nuptial plumage.

2. **Podilymbus podiceps.** PIED-BILLED GREBE.— An occasional fall and spring visitor, in late October, late March, and early April. The spring specimens in breeding plumage.

3. **Gavia immer.** LOON.— Accidental. Three November records, all in immature plumage.

4. **Larus franklini.** FRANKLIN'S GULL.— One specimen, a female in fall plumage, was secured near the ice-pond on October 22, 1898 (see Auk, Vol. XIX, p. 74.) This I believe, is the first record of this species east of the Mississippi. The specimen is now in my collection.

5. **Larus delawarensis.** RING-BILLED GULL.— An occasional winter and spring visitor; with one exception, all in adult plumage. I have six records, all on the college ice-pond, by my house; one each for December, January, April and May, and two for March. The May record was of an immature specimen. My house is within fifty yards of the ice-pond, and a spy-glass hangs within easy reach of my study window, so that identifications can easily be made; and if necessary, the gun can be called into service.

6. **Larus philadelphia.** BONAPARTE'S GULL.— One visited the

ice-pond in late March, 1906, another in March, 1908, and a third on April 4, 1911; all adult birds, with white tails.

7. *Sterna forsteri*. FORSTER'S TERN.—Accidental. Two specimens "in the meat" were sent me from Abingdon, Va., where they had been killed on a small fish pond, in August. Both were immature birds.

8. *Sterna hirundo*. COMMON TERN.—One adult male was brought to me alive in June, 1895. It had been wounded, flying about Roanoke river, within five miles of Blacksburg.

9. *Hydrochelidon nigra surinamensis*. BLACK TERN.—On the afternoon of July 5, 1905, a heavy rainstorm or cloudburst, filled completely the bottoms and ponds, particularly the then empty ice-pond. An adult male Black Tern, in perfect plumage, was attracted to the pond, and was secured by me. This is my only record.

10. *Æstrelata hasitata*. BLACK-CAPPED PETREL.—(Plate XXIV.) The terrible storm of August, 1893, which wrought such havoc on the South Atlantic coast, brought this ocean waif, in an emaciated condition, into my hands. At the time of record (see Auk, Vol. X, p. 361) it was, I believe, the third specimen of this species recorded for the United States. Newton, in his Dictionary of Birds, page 709, refers to this specimen. It is now in the collection of Dr. Jonathan Dwight, Jr.

11. *Lophodytes cucullatus*. HOODED MERGANSER.—A spring visitor, usually seen in pairs; on one occasion a male and two females were together. I have four records, all from the college ice-pond.

12. *Anas platyrhynchos*. MALLARD.—A regular fall, winter and spring visitor. I have seen as many as fourteen in one fall flock. In the winter and spring they are generally in pairs, or three to four together. Months of record are October, November, December, February, March and April; as early as October 17 and as late as April 23.

13. *Anas rubripes*. BLACK DUCK.—A winter and spring visitor, not abundant; usually in December and March, though I have one record for January 17, and two for May 2, 1903, and May 1, 1911. Largest number seen at any time, a flock of five on December 16, 1902.

14. *Mareca americana*. BALDPATE.—Rare. A pair of males on the ice-pond, April 5, 1911, and three females, with a female Shoveller, on April 8, 1911. This was on a Sunday, and the ducks knew it; they stayed on the pond all day, and became so used to being observed, that I crept to within twenty feet of them, and observed them for some time. When tired of swimming, they came out on the grassy edge of the pond, roamed about awhile, and then huddled together, with their heads under their wings for a nap, just as domestic ducks do. They were gone by Monday morning.

15. *Dafila acuta*. PINTAIL.—Two records for late February and three for March. One male seen with three Mallards on the ice pond, in a snow storm; and again three male Pintails together. Other records are for single birds alone. Only one female, which was secured.

16. *Nettion carolinense*. GREEN-WINGED TEAL.—A pair seen in middle of March, and the drake secured.

17. **Querquedula discors.** BLUE-WINGED TEAL.—A regular spring visitor in March and April. All my records are from the college ice-pond.

18. **Spatula clypeata.** SHOVELLER.—Rare. One male with three females on the ice-pond on February 14, 1911. I secured the male which was in fine plumage. One female with three female Baldpates on the pond the whole of Sunday, April 9, 1911. These, my only records.

19. **Aix sponsa.** WOOD DUCK.—I killed a female that sprang from a ditch to which I was walking, October 19, 1901; and a pair, male and female, were seen at close range as they sprang from a stream in the open field, October 23, 1902.

20. **Marila americana.** REDHEAD.—Three records in March, 1911; one flock of eight birds on the wing; one fine drake, on the ice-pond, observed with the glass, and the next morning, one female, killed on the ice-pond.

21. **Marila valisineria.** CANVAS-BACK.—A magnificent drake of this species and a fine male Ring-neck were killed at one shot on the ice-pond on March 11, 1911. The breast and belly of the Canvas-back were richly suffused with brick-red, as was also the case with a drake Mallard secured in late February here.

22. **Marila affinis.** LESSER SCAUP DUCK.—A regular spring and winter visitor, in November, January, March and April, and one female as late as May 28. The largest flock seen at one time on the ice-pond, contained eighteen birds. One day in January a small flock of six, of both sexes, lit on the ice of the frozen pond, awkwardly walking about with their bodies held very erect. They remained, squatting on the ice for over an hour, when a passer-by scared them.

23. **Marila collaris.** RING-NECKED DUCK. In some numbers during March and April, 1906, as many as five together at one time. Only twice since have they been recorded. I have noticed with these and the Lesser Scaup Duck, that when diving, the tail is always spread, and is deflexed as the head is dipped under water.

24. **Charitonetta albeola.** BUFFLE-HEAD.—One male was killed on the ice-pond May 1, 1898. The only record for this locality.

25. **Erismatura jamaicensis.** RUDDY DUCK.—One specimen, an adult female, was killed on the ice-pond, November 10, 1910.

26. **Branta canadensis canadensis.** CANADA GOOSE.—In former years, in the early nineties, several flocks could be seen or heard every spring. These have become rarer. My records are mostly in March from the 3rd to the 28th; one for February 22, one in early April, and I have a female in my collection, killed together with two others, on New River, five miles from here, on May 9, 1901. I have seen a flock of thirty-eight fly over my yard, within gun-shot.

27. **Botaurus lentiginosus.** BITTERN.—Doubtless more common than it appears to be; I have only five records; October and November, April and May.

28. **Ardea herodias herodias.** GREAT BLUE HERON.—An infre-

quent visitor, mostly in late April, and one, as late as June. Taken April 17 in fine breeding plumage.

29. **Florida cærulea.** LITTLE BLUE HERON.—Recorded on the strength of several reports that two "White Cranes" (!) were seen at sundry times during August in one year at a near-by pond. Most likely the young of this species, as one that was shot, but which I did not see, was reported to have had the wing feathers "smoky."

30. **Butorides virescens virescens.** GREEN HERON.—A summer resident, breeding in suitable localities. Arrives as early as April 4.

31. **Nycticorax nycticorax nævius.** BLACK-CROWNED NIGHT HERON.—A fine female was secured by me on July 14, 1903. The ovaries appeared to be active.

32. **Rallus elegans.** KING RAIL.—One male brought to me alive, caught by the foot in a musk-rat trap on November 12. Oddly enough, the same day, a Song Sparrow was also caught in another musk-rat trap. Doubtless this rail occurs more frequently.

33. **Rallus virginianus.** VIRGINIA RAIL.—One record in October, and one in May, both birds secured and examined by me. Doubtless more frequent.

34. **Porzana carolina.** SORA.—A regular fall and spring migrant, sometimes abundant in October. Appears as early as September 1. Specimens in full nuptial plumage obtained in early May.

35. **Gallinula galeata.** FLORIDA GALLINULE.—A fine female was shot by me in the top of a maple tree on the College campus on May 1, 1903. This is my only record. I have often thought that a more impossible record could hardly be conceived of; a bird of the salt sea marshes, in the top of a tree, on the summit of the Alleghany Mountains!

36. **Fulica americana.** COOT.—One record for October, and two for April; two obtained and one seen so closely as to make its capture unnecessary.

37. **Philohela minor.** WOODCOCK.—A number of records, singly and in pairs, in April, July, August and October. Not abundant, but occurring often enough to elicit no surprise when one is seen. It may breed, but I have no data.

38. **Gallinago delicata.** WILSON'S SNIFE.—Fairly abundant during the spring migrations, arriving early in March, the average big flight occurring about April 4, and an occasional one seen as late as April 29. Seen also in October and November, though not as numerous as in the spring, and occasionally a lone specimen remains by an open spring during December and even into January. No data as to breeding.

39. **Macrorhamphus griseus griseus.** DOWITCHER.—Two specimens seen and killed on September 5, 1908, after heavy easterly rains, in company with Pectoral and Least Sandpipers, and Killdeers.

40. **Pisobia maculata.** PECTORAL SANDPIPER.—Fairly regular as a spring migrant, in small flocks, from late March through April 8, and occasional in September.

41. **Pisobia minutilla**. LEAST SANDPIPER.— Three seen on August 19, 1903, and eight on September 5, 1908. Specimens obtained on each occasion.

42. **Totanus melanoleucus**. GREATER YELLOW-LEGS.— One September record and four in April. These, in five separate years.

43. **Totanus flavipes**. YELLOW-LEGS.— Frequent, from early March through April 29 and again in September, from the 5th, through 26th. As many as eight seen together in one flock.

44. **Helodromas solitarius solitarius**. SOLITARY SANDPIPER.— A regular visitor in April and May, and again in August and September. In August, at times, anything but solitary; I have seen over ten at one time in a small bog about a quarter of an acre in extent.

45. **Bartramia longicauda**. UPLAND PLOVER.— Summer resident; breeds. Arrives as early as April 6 and here until August 19. Alighting on fences and trees when their breeding places are invaded.

46. **Actitis macularia**. SPOTTED SANDPIPER.— A spring and summer resident. I have found the downy young on the College experiment grounds, attended by their anxious parents. Arrives, April 13; latest seen, August 8.

47. **Ægialitis semipalmata**. SEMIPALMATED PLOVER.— One specimen, seen August 16, 1909 in company with Killdeers. Recognized by its cry and with the telescope.

48. **Oxyechus vociferus**. KILLDEER.— Practically a resident; I have records for every month in the year, and I believe for every day. Scarcest in December, and some years wanting in extreme January weather. Breeds, and mates as early as March 25. Young in the down seen in early May.

49. **Colinus virginianus virginianus**. BOB-WHITE.— Resident; breeds; fairly abundant. Coveys occasionally seen on the college campus.

50. **Bonasa umbellus umbellus**.— RUFFED GROUSE.— "Pheasant." Resident; breeds. Occasional "red-ruffed" males are seen. Noticeably scarcer than twenty years ago.

51. **Meleagris gallopavo silvestris**. WILD TURKEY.— Twenty years ago this was not infrequent in the nearby mountain ravines. It is now rare.

52. **Ectopistes migratorius**. PASSENGER PIGEON.— Whether or not I saw six of these birds in the late fall of 1892 near Blacksburg, I am unwilling now to assert positively, though my notes for that date contain the item. I have shot them in Bath County, Va., when a boy, in 1877. At intervals, during recent years, remarkable tales about their reappearance have gotten afloat. Thus, in December, 1907, the late Chas. K. Worthen wrote, "I have just read that a lot — thousands — of Wild Pigeons had lately settled in the neighborhood of Webster, W. Va. Do you know or can you find out if so?" Upon this, I wrote to Mr. Earle A. Brooks, of that place, who replied that he had had many inquiries, and had heard many positive statements, in answer to his own investigation of the rumors,

from persons who stated positively that they saw flocks of Wild Pigeons, from one to a thousand birds, but "no positive evidence, no specimens, heads, wings or feathers, no statement from any reliable bird student have been received. Many things point to their occurrence in the State last fall." And again this Fall — 1911 — a persistent report reached me that Wild Pigeons in some numbers were seen near Pulaski, Va., not far from here. But that they were very wild, and allowed no one to get within gunshot of them, though many efforts were made to secure some. I failed, however, to "nail" this rumor, and could never find the man who had seen them, though many said they had heard others say that they had seen the birds. I mention these rumors for what they may be worth.

53. *Zenaidura macroura carolinensis*. MOURNING DOVE.— Common resident; breeds.

54. *Cathartes aura septentrionalis*. TURKEY VULTURE.— Resident. In the caves and among the rocks that overhang the New River near here, the "Turkey Buzzard" breeds in some numbers. I have had several sets of eggs from there, and in late May, the 26th, I once saw a nearly fledged young, about the size of an ordinary hen, in one of these caves.

55. *Catharista urubu*. BLACK VULTURE.— Very rare; three records. On October 8 and 9, 1909, there was one Black Vulture with the number of Turkey Vultures that frequent the Experiment Station cattle grounds. The square-cut tail, shorter alar expanse, and quicker flap of the wing, as well as the different tone of black, and the position of the feet in flight, were diagnostic of the bird, in contrast with the Turkey Vultures with which it was flying. On March 12, 1911, I also saw one specimen, and on January 22, 1912, I saw five in company with one Turkey Vulture. In Charleston, S. C., my old home, I used often to note the marked contrast in many respects between these two species.

56. *Circus hudsonius*. MARSH HAWK.— Common in the fall and winter months, and seen as late as April 2. A large proportion of my winter records are for blue males. I have no breeding records.

57. *Accipiter velox*. SHARP-SHINNED HAWK.— Not very abundant. Seen at odd times throughout the year. A pair seen together in early May, evidently male and female, gives color to a report of their breeding in the neighborhood. On one occasion I saw one attacking a Red-headed Woodpecker, which, however, eluded the hawk.

58. *Accipiter cooperi*. COOPER'S HAWK.— Of constant occurrence, though not abundant; breeds. One nest with young found in an old crow's nest.

59. *Astur atricapillus atricapillus*. GOSHAWK.— Very rare. One adult female, of rather small size brought in to me, recently shot, after a cold, windy snowstorm, November 19, 1906. The specimen was in fine plumage.

60. *Buteo borealis borealis*. RED-TAILED HAWK.— A fall and winter resident. My records are for October 30, through November, December, January, February and up to March 31. Most abundant in December and January.

61. **Buteo lineatus lineatus.** RED-SHOULDERED HAWK.— While most abundant during the months of November, December, and February I have records for this hawk for practically every month in the year. Specimens that I have killed had frogs and salamanders, and insect remains — principally grasshoppers — in their stomachs. I have a number of breeding records for this locality.

62. **Buteo platypterus.** BROAD-WINGED HAWK.— Not uncommon from May 7 to September 25; breeds. I saw a flock late in September all flying southwest; they were single, in pairs, and threes, fourteen altogether, and strung out for some distance. Occasionally one would circle for a time, and then resume the line of flight. I have come across a pair in the woods in the late spring, near the tree evidently chosen as a nesting site, from which they valiantly attacked and drove away a Red-shouldered Hawk; I was attracted at this time, and since, by their whining call, which at first I thought was a boy whistling. An incubating female was brought to me on May 18 by a farmer, who said that it had a nest in a large oak tree near his home, and that it was killing his chickens, and that he had shot it just after it had eaten a chicken. I skinned it and opened the stomach in his presence, and showed him, to his astonishment, that its crop contained the remains, easily distinguishable, of a young rat. I visited the nesting place with the intention of obtaining the eggs, but found the nest nearly seventy feet up in an enormous white oak, whose main trunk was fully five feet in diameter, and so gave it up, as I had no climbing irons.

63. **Aquila chrysaëtos.** GOLDEN EAGLE.— An irregular fall and winter visitor. Nine specimens recorded, of which I have actually handled six. I have one record for August 15. My other records being in November, December, and February. A female, brought to me in December, measured seven feet, one and one-half inches in extent; this was a young bird. One old male, in fine plumage, I secured on December 1. It had the nape of a deep rich gold, and the tail was fully barred.

64. **Haliaëetus leucocephalus leucocephalus.** BALD EAGLE.— Rare. I have handled two specimens in the dark, immature plumage, secured in January and December, and saw one adult, with white head and tail, soaring over the campus, at a great height.

65. **Falco peregrinus anatum.** DUCK HAWK.— One specimen only, seen in October.

66. **Falco columbarius columbarius.** PIGEON HAWK.— One freshly killed specimen was brought to me in September, the skin of which is now in my collection.

67. **Falco sparverius sparverius.** SPARROW HAWK.— Practically a resident and breeds. Noted every month in the year; they frequent the ivy-covered buildings on the campus, feeding on English Sparrows. The stomach and crop of one individual shot on the campus were densely packed with crickets. A family of fully fledged and flying young seen as late as July 17. I saw one catch a young Robin and perch with it on a telephone pole near one of the buildings, and calmly eat its capture in contempt of the onslaught of several excited adult Robins.

68. **Pandion haliaëtus carolinensis.** OSPREY.— Not infrequent in the spring months. I have one record for March, eight for April, in different years, one for May, and one for September. On April 17, 1909, three were in sight at once, circling over the campus.

69. **Aluco pratincola.** BARN OWL.— Occasional. Seven specimens, four males and three females, have come to my hands, in April, May, September and June.

70. **Asio flammeus.** SHORT-EARED OWL.— Occasional in the late fall, in marshy places. I have four records only.

71. **Strix varia varia.** BARRED OWL.— Common resident; breeds.

72. **Otus asio asio.** SCREECH OWL.— Abundant resident; breeds.

73. **Cryptoglaux acadica acadica.** SAW-WHET OWL.— One specimen reported to me in January last, seen on a window-sill in the early morning. The description was very accurate, and I have no doubt that the bird was this species.

74. **Bubo virginianus virginianus.** GREAT HORNED OWL.— Resident and breeds, though not abundant; have seen partly fledged young as late as April 7.

75. **Coccyzus americanus americanus.** YELLOW-BILLED CUCKOO.— Summer resident; breeds. First arrivals, May 1, usually May 5. Nest and eggs May 19.

76. **Coccyzus erythrophthalmus.** BLACK-BILLED CUCKOO.— Summer resident; breeds. First arrivals April 26, usually May 5-9. The two species are about equally abundant here.

77. **Ceryle alcyon alcyon.** BELTED KINGFISHER.— My records of the Kingfisher, beginning with March 10, run through April, May, June, and July to August 7. I believe it breeds in suitable localities, though I have no definite record.

78. **Dryobates villosus villosus.** HAIRY WOODPECKER.— A frequent fall and winter visitor, as early as September 10 and as late as February 18.

79. **Dryobates pubescens medianus.** DOWNY WOODPECKER.— Resident; breeds. Earliest nesting record, April 27.

80. **Sphyrapicus varius varius.** YELLOW-BELLIED SAPSUCKER.— Apparently a spring and fall visitor. My spring records are from March 25 to April 17, and again in October. These are the only months for which I have it recorded.

81. **Phlœotomus pileatus abieticola.** NORTHERN PILEATED WOODPECKER.— Resident, though rare now, save in remote mountain ravines. In the early '90's it was much more abundant.

82. **Melanerpes erythrocephalus.** RED-HEADED WOODPECKER.— Practically a resident, though winter records vary with the severity of the season. Abundant in spring and summer, mating as early as March 25. My records run through every day of the year. At times this species is a decided nuisance in gardens, ruining the ears of corn in the garden patch.

83. **Centurus carolinus.** RED-BELLIED WOODPECKER.— Apparently only a winter resident. My records start with September 27 and end with February 20.

84. **Colaptes auratus luteus.** NORTHERN FLICKER.— Usually seen every month in the year, though infrequent or wanting in severe winters. During the past winter 1911–1912, which was very severe, several were on the campus throughout December, January, and February. Mates as early as March 25.

85. **Antrostomus vociferus vociferus.** WHIP-POOR-WILL.— Arrives April 13. Last appearance September 28. In this region, very local in its habitat, seldom seen or heard in the immediate neighborhood of Blacksburg, or of the college grounds, but more frequent in adjoining valleys and ravines to the northeast and southwest. I have no breeding records.

86. **Chordeiles virginianus virginianus.** NIGHT-HAWK; BULL-BAT.— Summer resident; breeds; not common save during the late summer and fall flights. First arrival, April 26; begins flocking July 10; big flights throughout September, and last seen October 7.

87. **Chaëtura pelagica.** CHIMNEY SWIFT.— Summer resident; breeds. Earliest arrival April 12, latest April 28. Average arrival during my twenty years' observation, April 19. Prepares for migration about October 4, when incredible numbers collect in the evenings, whirling round, in decreasing circles, and descend spirally into their chosen chimneys for the night. Latest record, October 20.

88. **Archilochus colubris.** RUBY-THROATED HUMMINGBIRD.— Summer breeding resident. Very abundant at the trumpet blooms of the Tecoma vines on the college buildings in July. Arrives April 19, and latest seen, October 8. One nest, watched from its very beginning, was started May 15, incubation commenced June 5, young nearly full fledged June 20, and feeding on Tecoma blooms June 28.

89. **Tyrannus tyrannus.** KINGBIRD.— Summer breeding resident, abundant. Earliest arrival, April 19, and latest arrival April 26. Seen throughout September into October.

90. **Myiarchus crinitus.** CRESTED FLYCATCHER.— Summer resident, breeds; abundant. Earliest arrival, April 25; latest, April 30. Not seen after August 26.

91. **Sayornis phœbe.** PHŒBE.— Breeds, abundant. Earliest arrival, March 11; latest, March 27. Nest and eggs as late as June 12. At least two broods.

92. **Myiochanes virens.** WOOD PEWEE.— Breeds frequently in the apple trees around my house. Earliest arrival, April 30, last seen September 30.

93. **Empidonax flaviventris.** YELLOW-BELLIED FLYCATCHER.— Arrives April 30, last seen September 23. Common.

94. **Empidonax virescens.** ACADIAN FLYCATCHER.— Throughout the summer. Arrives May 9, latest seen October 11. Common.

95. **Empidonax minimus.** LEAST FLYCATCHER.— Common in orchards throughout the summer. First seen, March 19; latest, September 9.

96. **Otocoris alpestris praticola.** PRAIRIE HORNED LARK.— In flocks in open fields and on the campus throughout the fall and winter.

Arrives as early as November 9 and generally leaves in late March, about the 20th. Two seen as late as April 14, in 1905. I have collected specimens at various times from their first arrival and on, towards the end of their stay, throughout a number of years, and all have been the smaller and paler form, *praticola*.

97. **Cyanocitta cristata cristata.** BLUE JAY.—Like the Whip-poor-will, rarely seen in the valley in which Blacksburg lies, though common in a valley to the southwest, and in another to the northeast where the Roanoke River flows. I have eight records only, for the college campus, in April, May, August and October.

98. **Corvus corax principalis.** NORTHERN RAVEN.—I saw a pair of Ravens on the summit of Whitetop Mt. in Washington Co., Va., in September; this is the highest mountain in the State, and reaches the Balsam zone. On May 9, 1903, while collecting in a ravine near Blacksburg, I heard a hoarse, crow-like 'quonk,' and looking up, saw a Raven pursued by two Crows. Here there was no question of identity, as the size, shape, and cry of the Raven were in marked contrast with the characters of the noisy, smaller, aggressive Crows.

99. **Corvus brachyrhynchos brachyrhynchos.** CROW.—In the sense that Crows are always here, I suppose this bird can be called a resident, though I am unable to say whether the breeding birds go south in winter, and are replaced by migrating northern birds, as is the case with Robins. I think the same birds are here throughout the year. They pair in late March and are building by April 9.

100. **Dolichonyx oryzivorus.** BOBOLINK; RICE-BIRD.—A spring and fall migrant; very constant in date of spring arrival, coming as early as April 25, or at the latest, April 29, and remaining until May 14. The males arrive first and are in song throughout their short stay; in some years the females are as abundant, though usually the small flocks contain nearly all males. They are seen all over the open campus, and are usually known as 'May-birds.' In the fall, they arrive, in the Rice-bird plumage, about September 9 and are then very fat, and frequently in some numbers, and there is a succession of small flocks until September 22, when all depart. During this period, the 'clink' of passing birds can be heard throughout the night.

101. **Molothrus ater ater.** COWBIRD.—I have noted flocks of this species, of mixed sexes, from January 19 through April 23; most common throughout March.

102. **Agelaius phoeniceus phoeniceus.** RED-WINGED BLACKBIRD.—February 22 seems picked out as the usual date for the arrival of the Red-wing, in small flocks of males, the females arriving later, and apparently not abundant until April, when mating begins. First nests observed May 13; eggs on May 19, and young flying by June 10.

103. **Sturnella magna magna.** MEADOWLARK.—Resident. Very tame on the campus, where they are protected and are found in the hardest winter weather, seeking open places over the pipe and sewer lines where the

ground is thawed. I have seen fledged young as early as May 13; have found nests with eggs throughout May, and one nest with fresh eggs as late as July 12. I think two broods are usual, and possibly three occasionally.

104. **Icterus spurius.** ORCHARD ORIOLE.—Breeds; arriving as early as April 26, and is building by May 16. Very constant in the date of arrival, April 26 to 29 being the range of variation.

105. **Icterus galbula.** BALTIMORE ORIOLE.—Breeds. Range of first arrivals is from April 23 to April 30. Latest seen, August 22. Nest with eggs, by May 16. They frequent the potato patches with the fledged young and feed freely on potato beetles.

106. **Euphagus carolinus.** RUSTY BLACKBIRD.—A spring and fall migrant. Flocks of rusty individuals arrive about October 19 and are here until late in November. I have one record of one individual for December 31. A few begin to return by February 27. By March 8 full plumaged birds are here and remain until March 19 when they pass on.

107. **Quiscalus quiscula quiscula.** PURPLE GRACKLE.—Single specimens of the Crow Blackbird occasionally occur throughout the winter months; thus I have one record for December 29, 1904, one for January 17, 1907, and one for February 18, 1906. The earliest advent noted, in small flocks, is February 20; by March 8 the returning flocks are increasing in numbers. Earliest eggs noted are for May 20. By July 4, those breeding near each other begin to flock, young and old going out in the morning to feed in flocks, and returning together at sunset. By mid-October flocking for migration is evident, numbers leaving and being replaced by more northern flocks, which stop over for a few days in their flight, until by October 27 all are gone. About this time and later they are replaced for a few days by small flocks of the Bronzed Grackle.

108. **Quiscalus quiscula æneus.** BRONZED GRACKLE.—In small flocks from October 18 until November 20. One seen January 20, and a doubtful record was given me for March 10.

109. **Carpodacus purpureus purpureus.** PURPLE FINCH.—A winter and spring migrant. From February 15 to May 1. Most abundant in March and April. Seen also early in November.

110. **Loxia curvirostra minor.** CROSSBILL.—Saw one male on a fir tree on the campus, on January 16. I was attracted by its note, and got easily within thirty feet of it and watched it for some time. The odd occurrence of this species in the summer months in unlikely southern localities has been noted: by Wayne, at Yemassee, S. C., for two or three years; and by Wirt Robinson, in Nelson Co., Va., in July. So it was no surprise to me to find a flock in the town limits of Blacksburg on June 12, 1909, which remained for several days, and specimens therefrom were brought me for identification.

111. **Astragalinus tristis tristis.** GOLDFINCH.—A roving resident. Here every month in the year. Plumage of the males changing in late April. A late breeder; eggs as late as August.

112. **Spinus pinus.** PINE SISKIN.—Occasional in the winter. In 1908, a large flock was here continually from December 26 until May 4, 1909.

113. **Poecetes gramineus gramineus**. VESPER SPARROW.— Summer resident, breeds. Earliest arrival, March 17; last seen, November 2. Abundant.

114. **Passerculus sandwichensis savanna**. SAVANNAH SPARROW.— Winter resident, from October 5 to April 8. Abundant.

115. **Ammodramus savannarum australis**. GRASSHOPPER SPARROW.— Summer resident; breeds. A late spring migrant, arriving in late May or early June, and here until October 10. Abundant.

116. **Passerherbulus nelsoni nelsoni**. NELSON'S SPARROW.— A fine female, in fresh plumage was brought into the house by my cat on May 23, 1908. (See Auk, Vol. XXV, p. 475.) Possibly occurs regularly at or about this date, but apt to be overlooked or mistaken in the grass for the Grasshopper Sparrow.

117. **Zonotrichia leucophrys leucophrys**. WHITE-CROWNED SPARROW.— Specimens in breeding plumage, mostly males, arrive May 6 and are gone by May 9. Again, in the fall, brown-headed individuals, in some numbers, October 13–22. Very constant in date, and seldom here over three days.

118. **Zonotrichia albicollis**. WHITE-THROATED SPARROW.— Abundant in April and October. Earliest fall arrival, October 9 and gone by November 12. In Spring, from April 6 to May 8.

119. **Spizella monticola monticola**. TREE SPARROW.— An abundant winter resident, flocking, twittering and singing in company with the Juncos, from November 22 to March 10.

120. **Spizella passerina passerina**. CHIPPING SPARROW.— An abundant summer breeder, in evidence from March 11 to October 22, building by May 2.

121. **Spizella pusilla pusilla**. FIELD SPARROW.— Abundant, arriving Mar. 13 and here until November 5. Eggs by May 2.

122. **Junco hyemalis hyemalis**. SNOWBIRD; JUNCO. Though I have examined many in early fall and throughout the season, I have found only the typical northern form; yet I feel sure that *carolinensis* must occur. Arrives October 12 and here in abundance until April 22 singing during the latter part of its stay.

123. **Junco hyemalis carolinensis**. CAROLINA JUNCO. Not identified. Reported to breed on the top of White-top Mountain, in Washington Co., Va., where I have seen Juncos in August.

124. **Peucaea aestivalis bachmani**. BACHMAN'S SPARROW.— Accidental. One specimen, May 2, 1906. (See Auk, Vol. XXIII, p. 341.)

125. **Melospiza melodia melodia**. SONG SPARROW.— Resident. Singing on cold, snowy, winter days, with a hope of Spring in its song. Building April 16, and eggs as late as July 13. Two-, and possibly three-brooded.

126. **Melospiza lincolni lincolni**. LINCOLN'S SPARROW.— Only three specimens seen, and all obtained, two in early May, and one on September 28.

127. **Melospiza georgiana**. SWAMP SPARROW.— Apparently only a winter resident. Observed from October 5 to March 11. Abundant along banks of streams and in marshy places.

128. **Passerella iliaca iliaca**. FOX SPARROW.— Not abundant. Observed in small numbers or singly, from October 15 to November 24, and again from February 25 to March 17.

129. **Pipilo erythrophthalmus erythrophthalmus**. TOWHEE.— An abundant breeding summer resident. Arrives April 9, males usually preceding the females. Latest seen, October 24. In moulting plumage throughout September.

130. **Cardinalis cardinalis cardinalis**. CARDINAL.— Resident. Not abundant. Several pairs nest on the campus and are here all winter and throughout the year. Eggs as early as April 29. Fledged young flying with old birds as late as July 20.

131. **Zamelodia ludoviciana**. ROSE-BREASTED GROSBEEK.— A rare spring and fall migrant. Two males killed April 29 and one seen May 3, a female on September 19 and a young male September 23, complete my record for this immediate locality. I know it to breed in Taylor's Valley, near White-top Mountain.

132. **Passerina cyanea**. INDIGO BUNTING.— An abundant summer resident and a late breeder. Arrives April 26 and last seen October 12.

133. **Piranga erythromelas**. SCARLET TANAGER.— Common in the spring migration. I doubt if it breeds here. Arrives as early as April 29 and incidentally seen through April and as late as May 16. On several occasions in May, I have seen a number together; thus on May 16, 1907, five males in the top of one oak tree; on May 9, 1908, three males together, and on May 12, 1903, two males and one female together. Red males pass south July 4 to 17<sup>1</sup> and females and young from August 22 to September 23.

134. **Progne subis subis**. PURPLE MARTIN.— A constant but not abundant summer resident. Breeds in the Martin boxes set out for it. Arrives March 22, though more often later, most of my "First arrivals" being early in April. Nesting by June 5. Last seen September 1.

135. **Petrochelidon lunifrons lunifrons**. CLIFF SWALLOW.— An abundant summer breeding resident. Arrives May 7, and flocks for departure in late July.

136. **Hirundo erythrogastra**. BARN SWALLOW.— Abundant summer breeding resident, sometimes arriving too early for safety, and killed by early April freezes. First arrival noted April 6. Flocks by July 20 and gone by September 5.

137. **Iridoprocne bicolor**. TREE SWALLOW.— A spring migrant. All of my records are for April, from the 5th to the 28th. Not seen at other times.

138. **Riparia riparia**. BANK SWALLOW.— Seen from April 1 to August 11. Whether I have ever mistaken on the wing the Rough-winged Swal-

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<sup>1</sup>It would seem more probable that they pass into the green plumage at this date. Ed.

low for this species here, I do not know; all the specimens I have killed at various times have been Bank Swallows.

139. **Bombycilla cedrorum**. CEDAR WAXWING.— A summer breeding resident. In flocks from March 5 until May, when pairing begins. A pair built in an apple tree within a few feet of my house, and were so quiet that I did not know of the nest until the young were nearly fledged. Flocks again by September, and seen until October 27.

140. **Lanius ludovicianus ludovicianus**. LOGGERHEAD SHRIKE.— Occurs sparingly throughout the year, commoner in fall and winter. I have no breeding records. The honey-locust trees on the campus often contain shrews and small meadow mice impaled on their thorns. On one occasion, I saw a Shrike catch a Junco, this was in February; and one cold December day I saw one eating the dried remains of impaled grasshoppers and caterpillars on a thorn bush.

141. **Vireosylva olivacea**. RED-EYED VIREO.— An abundant summer breeding resident, arriving by April 19, and here until September 16.

142. **Vireosylva gilva gilva**. WARBLING VIREO.— Breeds in the orchard around my house, where its song is heard throughout the spring and summer. Arrives April 23 and latest seen September 27. Common.

143. **Lanivireo solitarius solitarius**. BLUE-HEADED VIREO.— Apparently only the typical species occurs here; in the spring, from April to May 2. Rare.

144. **Lanivireo flavifrons**. YELLOW-THROATED VIREO.— A woodland summer resident. First arrival noted April 14; last seen August 20, though it probably occurs later. Common.

145. **Mniotilta varia**. BLACK AND WHITE WARBLER.— Abundant throughout the spring and summer. Earliest seen April 10, and latest September 5. Families of old and young in early July.

146. **Helmitheros vermivorus**. WORM-EATING WARBLER.— Arrives April 28, wanting after July 23. One pair found nesting on June 2, and eggs hatching on the 5th, and the young flying by June 23. Common.

147. **Vermivora chrysoptera**. GOLDEN-WINGED WARBLER.— Not common, but breeds; one nest with young, found June 5. Arrives May 5.

148. **Vermivora celata celata**. ORANGE-CROWNED WARBLER.— One specimen obtained October 2.

149. **Vermivora peregrina**. TENNESSEE WARBLER.— A migrant, abundant in the fall from September 16 to October 10. Apparently wanting in the spring migrations, probably taking some other line for the vernal flight.

150. **Compsothlypis americana usneæ**. PARULA WARBLER.— An abundant breeding summer resident, building its lichen-suspended nests in the Usnea on crab-apple trees and Cratægus. Full plumaged males here by April 13. One pair commenced building nest April 30, finished by May 8, incubation was in progress May 13 when the nest was destroyed by some boys. Flying young are abundant by mid-July.

151. **Dendroica tigrina**. CAPE MAY WARBLER.— A fall and spring

migrant. Fine plumaged males taken in late September and young are passing until October 26. One adult male in song on the campus on May 6; this is my only spring record.

152. *Dendroica aestiva aestiva*. YELLOW WARBLER.— An abundant summer breeding resident. Arrives April 13. Building by May 14 in apple trees.

153. *Dendroica caerulescens caerulescens*. BLACK-THROATED BLUE WARBLER.— Common in the spring and fall migrations; from April 20 to May 9 and from September 16 to October 9.

154. *Dendroica coronata*. MYRTLE WARBLER.— Common in low shrubbery, and careless of approach throughout October; frequenting tree tops and wary from April 18 to May 9, during which period it is often in song, and in nearly perfect vernal plumage. One record for March 14.

155. *Dendroica magnolia*. MAGNOLIA WARBLER.— A common spring and abundant fall migrant; May 8 to 13 and September 10 to October 9; the fall specimens mostly immature.

156. *Dendroica cerulea*. CERULEAN WARBLER.— A very rare spring warbler, only two specimens ever seen here by me; May 2, 1891, and May 1, 1893, the latter secured.

157. *Dendroica pensylvanica*. CHESTNUT-SIDED WARBLER.— An uncommon spring migrant, a few pairs stopping to breed. Two nests with eggs, May 23, 1909, are my only breeding records. Very abundant in the fall migrations, from July 18 to September 10. The earlier fall records being possibly locally bred birds.

158. *Dendroica striata*. BLACK-POLL WARBLER.— Only two spring records, May 16, 1903, and May 15, 1907, both full plumaged males. Very abundant in the fall from September 23 to October 9.

159. *Dendroica fusca*. BLACKBURNIAN WARBLER.— Another rare spring migrant, but abundant in the fall. I saw and heard a full plumaged male in song on the campus, May 14, 1910, and one other, May 2, 1892. Common throughout September in immature plumage.

160. *Dendroica virens*. BLACK-THROATED GREEN WARBLER.— A common spring and abundant fall migrant. Found during the latter part of April, in breeding plumage, and from July 20 to October 6. May possibly breed, as the July records are all immature birds.

161. *Dendroica vigorsii*. PINE WARBLER.— Very rare here; two specimens obtained September 14.

162. *Dendroica palmarum hypochrysea*. YELLOW PALM WARBLER.— Two adults secured May 3; abundant in the fall from September 30 to October 22.

163. *Dendroica discolor*. PRAIRIE WARBLER.— Only two records, May 2 and September 3, latter a young bird.

164. *Seiurus aurocapillus*. OVEN-BIRD.— An abundant breeding summer resident. Earliest arrival April 26, and latest seen October 12. Nest with fledglings June 9.

165. *Seiurus motacilla*. LOUISIANA WATER-THRUSH.— This, the

only form seen here, breeds along water courses in wooded ravines. Arrives April 9; latest record October 10. I have killed and closely watched many, to see if the slender-billed *noveboracensis* occurred, but have found every specimen to be the large-billed form. Near Charleston, S. C., many records that I have are all of *noveboracensis*.

166. **Geothlypis trichas trichas.** MARYLAND YELLOW-THROAT.—A summer resident, breeding; common. Arrives May 8; not seen after September 27.

167. **Icteria virens virens.** YELLOW-BREASTED CHAT.—Abundant; breeds. Arrives April 29. Seen in its 'dropping song' May 3; latest noted September 16, a female.

168. **Wilsonia citrina.** HOODED WARBLER.—Apparently rare in the spring, May 12 the earliest record. Seen again July 30 and common in August and up to September 15.

169. **Wilsonia pusilla pusilla.** WILSON'S WARBLER.—Occasional. Two spring records, May 12, 1906, and May 15, 1907; and three records for September 20 and 28, 1892, and September 10, 1910.

170. **Wilsonia canadensis.** CANADA WARBLER.—One specimen only, August 15.

171. **Setophaga ruticilla.** REDSTART.—A summer resident, arrives April 30 and remains until September 30.

172. **Anthus rubescens.** PIPIT.—A winter visitor. In flocks on the bare fields from October 19 to April 2. In severe winters, not seen in January or February.

173. **Mimus polyglottos polyglottos.** MOCKINGBIRD.—An irregular and uncommon visitor or resident, I hardly know which to say. For the past three years, two have been constant residents on the campus, and are reported to have bred. Before this, my records, oddly enough, are for the late fall and winter months only.

174. **Dumetella carolinensis.** CATBIRD.—Summer breeding resident; abundant. Arrives April 26; latest seen October 10. Building by May 12.

175. **Toxostoma rufum.** BROWN THRASHER.—An abundant summer resident, from April 10 to October 9. Earliest nest and eggs, June 3.

176. **Thryothorus ludovicianus ludovicianus.** CAROLINA WREN.—Resident; its bright, voluble song heard throughout the winter. Full fledged young, May 16.

177. **Thryomanes bewicki bewicki.** BEWICK'S WREN.—Abundant; a breeding summer resident, nesting in holes in fence rails, on beams under houses, in barns and corn cribs, and other suitable places. Arrives March 17, seen and heard until September 30; one stray specimen January 22, 1903. Commences to build by March 28, nesting all through April, and nest and eggs found as late as May 11.

178. **Troglodytes aëdon aëdon.** HOUSE WREN.—A common summer resident, building in holes in the brick walls of the college buildings. Seen from April 24 to September 23.

179. **Nannus hiemalis hiemalis.** WINTER WREN.—Occasionally seen. Some half dozen records from October 9 to November 16.

180. **Cistothorus stellaris.** SHORT-BILLED MARSH WREN.—One specimen secured, October 24. Suitable localities not very numerous in this mountain land.

181. **Telmatodytes palustris palustris.** LONG-BILLED MARSH WREN.—Frequent, from April 28 to October 30. I have found one nest, but do not think it is a regular breeder, owing, perhaps, to the scarcity of suitable marshy places.

182. **Certhia familiaris americana.** BROWN CREEPER.—It may be my fault that I have seen this inconspicuous little bird only from April 10 to May 1, and from October 10 to February 18, apparently more common in the fall and winter, when the trees are bare. On one occasion, clad in khaki I was standing motionless watching a Creeper on an oak tree near by, when the bird flew downward and lit on my leggings, and scrambled nearly up to my waist, when it took fright and flew away.

183. **Sitta carolinensis carolinensis.** WHITE-BREADED NUTHATCH.—Resident, and fairly abundant.

184. **Sitta canadensis.** RED-BREADED NUTHATCH.—I secured two on August 12, 1899, which seemed to be young, just fledged. One other obtained September 1.

185. **Penthestes carolinensis carolinensis.** CAROLINA CHICKADEE.—Resident. Common.

186. **Bæolophus bicolor.** TUFTED TITMOUSE.—Resident, and, with the former species, coming around dwellings in the winter; one specimen flying through an open window into a room. Breeds in holes in trees, building April 13, nesting April 28, and with young May 30.

187. **Regulus satrapa satrapa.** GOLDEN-CROWNED KINGLET.—March 28 to April 15, and October 15 to December 29. Two records in January, 10 and 30, 1902. Abundant during the migrations.

188. **Regulus calendula calendula.** RUBY-CROWNED KINGLET.—One record, January 30, 1902, in company with *R. satrapa satrapa*. Abundant from April 10 to 23, its wonderful song then heard occasionally. In the fall, in great numbers from September 27 to November 22.

189. **Polioptila cærulea cærulea.** BLUE-GRAY GNATCATCHER.—Frequent, from April 17 to May 9. One record July 18, and two for September 2 and 20.

190. **Hylocichla mustelina.** WOOD THRUSH.—An abundant summer resident, from April 26 to September 30.

191. **Hylocichla fuscescens fuscescens.** VEERY.—A spring migrant, from April 30 to May 6. Common.

192. **Hylocichla ustulata swainsoni.** OLIVE-BACKED THRUSH.—To distinguish with certainty this species from the Hermit Thrush, and others closely related, when sitting, flying or hopping in dense and dark underbrush, without committing murder, is not given to all ornithologists. I have only two positive records of the Olive-back, May 9 and 13. One

bird obtained and the other identified with certainty. At other times I have been unwilling to say positively as to the species, and have killed too many Hermits to make sure, and have latterly preferred to remain in doubt, rather than kill.

193. *Hylocichla guttata pallasi*. HERMIT THRUSH.— Common from March 6 to May 8 and from October 12 to November 2.

194. *Planesticus migratorius migratorius*. ROBIN.— I have records of individuals and flocks for every month in the year. About September 18 the breeding birds start south, and are succeeded throughout the fall and winter by more northern birds, the most northern probably making this region the average limit of their southern migration, going a little south from here in severe winter weather and returning with every mild change. This past winter (1912), a very severe one, numbers of Robins have been on the campus throughout January and February. Spring migrants begin to return by February 22, waves of migration pass through in March; by April 11 building is going on. There are, I think, at least three broods, certainly two. In 1900 I found partially fledged and fluttering young on April 6.

195. *Sialia sialis sialis*. BLUEBIRD.— Practically resident and breeding about the houses in suitable holes; nest building as early as March 24. In cold weather, feeding on the berries of ampelopsis, on the piazza of my house. Some times absent for a period during very severe winter weather; though some winters, here through the whole season.

#### SUMMARY.

##### *Residents.*

Killdeer.	Red-headed Woodpecker.
Bob-white.	Flicker.
Ruffed Grouse.	Blue Jay.
Turkey.	Crow.
Mourning Dove.	Meadowlark.
Turkey Vulture.	Goldfinch.
Cooper's Hawk.	Cardinal.
Red-shouldered Hawk.	Mockingbird.
Sparrow Hawk.	Carolina Wren.
Barred Owl.	White-breasted Nuthatch.
Screech Owl.	Carolina Chickadee.
Great Horned Owl.	Tufted Titmouse.
Downy Woodpecker.	Robin (see note).
Pileated Woodpecker,	Bluebird.

*Summer Residents.*

Green Heron.	Towhee.
Woodcock.	Indigo Bunting.
Upland Plover.	Purple Martin.
Spotted Sandpiper.	Cliff Swallow.
Sharp-shinned Hawk.	Barn Swallow.
Broad-winged Hawk.	Bank Swallow.
Yellow-billed Cuckoo.	Cedar Waxwing.
Black-billed Cuckoo.	Red-eyed Vireo.
Kingfisher.	Warbling Vireo.
Whip-poor-will.	Yellow-throated Vireo.
Nighthawk.	Black and White Warbler.
Chimney Swift.	Worm-eating Warbler.
Ruby-throated Hummingbird.	Golden-winged Warbler.
Kingbird.	Parula Warbler.
Crested Flycatcher.	Yellow Warbler.
Phoebe.	Chestnut-sided Warbler.
Wood Pewee.	Oven-bird.
Yellow-bellied Flycatcher.	Louisiana Water-Thrush.
Acadian Flycatcher.	Maryland Yellow-throat.
Least Flycatcher.	Yellow-breasted Chat.
Red-winged Blackbird.	Redstart.
Orchard Oriole.	Catbird.
Baltimore Oriole.	Brown Thrasher.
Purple Grackle.	Bewick's Wren.
Vesper Sparrow.	House Wren.
Grasshopper Sparrow.	Long-billed Marsh Wren.
Chipping Sparrow.	Wood Thrush.
Field Sparrow.	

*Winter Residents.*

Red-tailed Hawk.	Savannah Sparrow.
Hairy Woodpecker.	Tree Sparrow.
Red-bellied Woodpecker.	Junco.
Prairie Horned Lark.	Swamp Sparrow.

*Spring Visitors.*

Ring-billed Gull.	Canada Goose.
Bonaparte's Gull.	Great Blue Heron.
Hooded Merganser.	Osprey.
Baldpate.	Nelson's Sparrow.
Green-winged Teal.	Tree Swallow.
Blue-winged Teal.	Blue-headed Vireo.
Redhead.	Cerulean Warbler.
Canvas-back.	Veery.
Ring-necked Duck.	Olive-backed Thrush.
Buffle-head.	

*Fall Visitors.*

Wood Duck.	Bronzed Grackle.
Ruddy Duck.	Tennessee Warbler.
King Rail.	Pine Warbler.
Least Sandpiper.	Winter Wren.
Short-eared Owl.	Short-billed Marsh Wren.

*Late Winter and Spring Visitors.*

Black Duck.	Cowbird.
Pintail.	Pine Siskin.
Shoveller.	

*Spring and Fall Visitors.*

Pied-billed Grebe.	Rose-breasted Grosbeak.
Bittern.	Scarlet Tanager.
Virginia Rail.	Cape May Warbler.
Sora Rail.	Black-throated Blue Warbler.
Coot.	Myrtle Warbler.
Wilson's Snipe.	Magnolia Warbler.
Pectoral Sandpiper.	Black-poll Warbler.
Greater Yellow-legs.	Blackburnian Warbler.
Yellow-legs.	Black-throated Green Warbler.
Solitary Sandpiper.	Yellow Palm Warbler.
Barn Owl.	Prairie Warbler.
Sapsucker.	Hooded Warbler.
Bobolink.	Wilson's Warbler.
Rusty Blackbird.	Golden-crowned Kinglet.
White-crowned Sparrow.	Ruby-crowned Kinglet.
White-throated Sparrow.	Blue-gray Gnatcatcher.
Lincoln's Sparrow.	Hermit Thrush.
Fox Sparrow.	

*Fall, Winter and Spring Visitors.*

Horned Grebe.	Purple Finch.
Mallard.	Pipit.
Lesser Scaup Duck.	Brown Creeper.
Marsh Hawk.	

*Fall and Winter Visitors.*

Golden Eagle.	Loggerhead Shrike.
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*Summer Visitors.*

Little Blue Heron.	Canada Warbler.
Black-crowned Night Heron.	Red-breasted Nuthatch.

*Accidental.*

Loon.	Goshawk.
Franklin's Gull.	Bald Eagle.
Forster's Tern.	Duck Hawk.
Common Tern.	Pigeon Hawk.
Black Tern.	Saw-whet Owl.
Black-capped Petrel.	Raven.
Florida Gallinule.	Crossbill.
Dowitcher.	Bachman's Sparrow.
Semipalmated Plover.	Orange-crowned Warbler.
Black Vulture.	

## NUMBER OF SPECIES — RECAPITULATION.

Residents .....	28
Summer Residents .....	55
Winter Residents .....	8
Spring Visitors .....	19
Late Winter and Spring Visitors .....	5
Fall Visitors .....	10
Spring and Fall Visitors .....	35
Fall, Winter and Spring Visitors .....	7
Fall and Winter Visitors .....	2
Summer Visitors .....	4
Accidental .....	19
Unclassified or Hypothetical .....	3
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It will be noted that I have not included in this list the omnipresent English Sparrow. This does not imply that we are favored above surrounding regions. My division of seasons is not exactly that usually given, but I thought this more minute division would give more exactly the times of appearance of visitors.