

June 10 and 17 would be the best time to find the female building (it would be next to useless to search for the nests after they are completed), while June 25 to July 1 should be early enough to expect full sets of eggs. But opposed to this conclusion are the early date (June 26) at which I found young on wing near Winchendon in 1887 and the record * by Mr. Charles H. Andros of a set of ten eggs taken by Mr. Cheney at Grand Manan, New Brunswick, "on or about June 1." It is possible that the species rears two broods in a season but, on the whole, I am inclined to believe that its time of nesting is irregular, varying at different places or at the same place in different years.

BIRDS OF CARROLL COUNTY, INDIANA.

BY BARTON W. EVERMANN.

CARROLL COUNTY lies in the northern central part of Indiana, about one hundred miles south of Lake Michigan. The chief river of the County is the Wabash, which flows southwest across the northwest part of the County. The greater part of the County lies to the east and southeast of the river, and is drained into it by Rock, Deer, and Wild Cat Creeks. The Tippecanoe River flows for a few miles through the northwest corner of the County, its direction being almost due south.

All that portion of the County lying to the east and southeast of the Wabash (embracing ten of the thirteen townships) was originally very heavily timbered, and there yet remain many uncleared acres. The chief forest trees are beech, red and white oak, elm, ash, poplar (tulip), sycamore, maple (hard and soft), walnut (black and white), hickory, — in short the usual deciduous trees of the ordinary forest of central Indiana. There are practically no pines or other evergreens in the County, except a very few along the Tippecanoe. The three townships lying on the right bank of the Wabash differ materially from those on the other side. Adams, the most eastern of the three, is inclined to

* Ornithologist and Oölogist, Vol. 12, p. 203.

be quite broken near the river, and is covered with a heavy growth of oaks. The other two townships are nearly all prairie, with here and there a grove of small white oaks, and a belt of timber along each of the two rivers. Excepting a portion of Adams township and a small area in the southwest corner of the County near where Wild Cat Creek leaves it, the surface may be said to be level or gently undulating. All the streams which empty into the Wabash from the east flow in a general westerly direction.

Most of the observations upon which this list is based were made (1) in the vicinity of Burlington in the southeast corner of the County, and (2) near Camden in the central part of the County. Burlington is situated on the south bank of Wild Cat Creek, and Camden is upon Deer Creek, sixteen miles to the northwest. During the years 1883-1885, however, I was enabled to make observations in every part of the County. I began recording my observations of the birds of this County in the autumn of 1877, and continued it until July, 1879, when I left the State. Some few notes are the results of brief visits in the summers of 1881 and 1882. But the list chiefly depends upon the observations made from March, 1883, to July, 1885.

In order that the list might be made thoroughly reliable, in so far as is in my power to make it so, I have included in it only those species which I have positively identified as belonging to the avifauna of the County. Not a single species not actually seen by me in the County has been admitted into the list proper. Thus restricted, the list pretty correctly indicates what the student of birds will find when he collects here. Where dates are given, those for the spring migrations refer to first arrivals unless otherwise stated. In nomenclature and classification the A. O. U. Code and Check-List of N. A. Birds has been followed.

1. *Podilymbus podiceps*. **PIED-BILLED GREBE.**—I have occasionally seen this Diver in spring and again in the autumn on Deer Creek. It seems to be but a rare migrant.

2. *Urinator imber*. **LOON.**—Seen occasionally on the Wabash and rarely on Wild Cat and Deer Creeks. I saw one which was killed on Wild Cat Creek, April 18, 1885.

3. *Larus argentatus smithsonianus*. **AMERICAN HERRING GULL.**

4. *Larus delawarensis*. **RING-BILLED GULL.**

5. *Larus philadelphia*. **BONAPARTE'S GULL.**—I have seen these three species upon the Wabash a few times in spring, but never in autumn. Specimens of the last were obtained at Lake Maxinkuckee April 17, 1885.

6. *Sterna hirundo*. COMMON TERN. — On May 2, 1884, I saw perhaps a dozen flying up the river near Delphi. I obtained one at Lake Maxinkuckee May 11, 1885, when it was common.

7. *Pelecanus erythrorhynchos*. AMERICAN WHITE PELICAN. — Rare migrant. One shot by Mr. W. W. Black in the spring of 1881, near the Tippecanoe River.

8. *Mergus americanus*. AMERICAN MERGANSER. — Common spring migrant; less common in the autumn and winter. It usually appears on Deer Creek about the first of March (March 1, 1878; March 1, 1879; Feb. 13, 1884; Feb. 17, 1885). In the spring of 1885 it continued in Deer Creek until late in April. A few are usually to be found in winter in the Wabash wherever it is not frozen. During the spring migrations this seems to be the most common species on the creeks of the County.

9. *Mergus serrator*. RED-BREASTED MERGANSER. — This is one of the rarest Ducks in this region. I have seen it but two or three times.

10. *Lophodytes cucullatus*. HOODED MERGANSER. — A rather common migrant, remaining in the spring as late as May. I have often met with single pairs about swamps and ponds in midsummer, and have seen the young on Deer Creek in July. I think, however, that the bulk of the species breeds much farther north. I have seldom seen the males in full adult plumage. April 8, 1885.

11. *Anas boschas*. MALLARD. — The Mallard is not rare on the river during the spring and autumn migrations, but I have not often seen it on the smaller streams. It probably bred in the County formerly, but I do not think it does so now.

12. *Anas obscura*. BLACK DUCK. — I saw a single specimen in the Delphi market in March, 1879, which was said to have been shot on the Wabash near the town.

13. *Anas americana*. BALDPATE. — Spring and autumn migrant, — apparently not common. A flock of about a dozen seen on Deer Creek March 26, 1884, from which a female was shot. Another flock of six was seen on the same creek March 24, 1885.

14. *Anas carolinensis*. GREEN-WINGED TEAL. — Probably more common than my records indicate. The only specimen I ever saw in the County is a female which I took on Deer Creek, April 8, 1885.

15. *Anas discors*. BLUE-WINGED TEAL. — I have seen specimens in the Delphi market, but never took any in the County myself. Common at Lake Maxinkuckee May 11, 1885.

16. *Spatula clypeata*. SHOVELLER. — A not very common migrant. Shot one on Deer Creek, March 18, 1879, and another March 26, 1885. Several were seen on this last date.

17. *Dafila acuta*. PINTAIL. — A rather rare migrant.

18. *Aix sponsa*. WOOD DUCK. — Formerly a common summer resident, but now one of the rarest Ducks in this region. March 1 and 14, 1879; July, 1877; March 26, 1885.

19. *Aythya affinis*. LESSER SCAUP DUCK. — Migrant, but not often seen by me. April 18, 1885.

20. *Glaucionetta clangula americana*. AMERICAN GOLDEN-EYE.—Rare migrant; seen most often in March and April.

21. *Glaucionetta islandica*. BARROW'S GOLDEN-EYE.—A very rare bird in this County. A female which I shot in Deer Creek, near Camden, March 19, 1885, is, as far as I know, the only specimen of the species ever taken in this part of the State.

22. *Charitonetta albeola*. BUFFLE-HEAD.—A more common migrant than either of the last. A few probably remain in open places in the river through the winter.

23. *Erismatra rubida*. RUDDY DUCK.—A rare spring and autumn migrant.

24. *Branta canadensis*. CANADA GOOSE.—Formerly an abundant migrant, often stopping in wheat fields to feed, but of late years it is much less common; only a few flocks are seen flying over each spring and autumn, and but rarely are any killed by the local sportsmen. On the prairies to the northwest of Carroll County they are said to still stop in considerable numbers.

25. *Olor columbianus*. WHISTLING SWAN.—A regular but rare migrant, most often seen in the spring. One or more specimens are taken nearly every spring on the Wabash near Delphi.

26. *Olor buccinator*. TRUMPETER SWAN.—Less common than the Whistling Swan. I remember but one specimen; that was killed on Wild Cat Creek, near Burlington, several years ago.

27. *Botaurus lentiginosus*. AMERICAN BITTERN.—While the Bittern is probably a not uncommon migrant through the County, I have seen very few within the County, owing no doubt to the fact that I was able to make but few observations in regions suitable for such birds. Specimens gotten at Lake Maxinkuckee April 15 and May 2 and 9, 1885.

28. *Ardea herodias*. GREAT BLUE HERON.—This Heron begins to arrive from the South quite early in the spring (April 8, 1884; February 14, March 1 and 18, 1885), and remains until late in October. It seems to be by far the most abundant Heron which visits us. At present there are two large heronries in the County that I know of. The first of these is in Adams township near the northern limit of the County, about six miles north of the Wabash and about the same distance east of the Tippecanoe. The other is in what is known as the Maple Swamp, in the southern part of the County, about six miles south of Wild Cat Creek, or eighteen miles from the Wabash. This swamp is made by the widening of a small stream called Middle Fork, so that it covers an area of several hundred acres. The lower portion of this swamp is covered with a heavy growth of swamp ash and soft maple, and in the tops of these trees the Herons build their nests. My first visit to this heronry was on June 12, 1882. We found more than a hundred pairs nesting there then, and their many nests, some no longer used, presented a very interesting sight. Passing by the swamp in winter when the leaves are off, the nests show very plainly. As many as thirteen nests were seen in one tree, and many other trees contained from three to ten nests each. I climbed to many of

these nests on May 21, 1883, and found young in some and eggs in various stages of incubation in the others. It is said that many more nested here formerly, but they have been so harassed and molested by squirrel hunters and others who annoy them needlessly, that they are being gradually driven away. In the last two years the swamp has been ditched and this heronry may now be counted among the things of the past. Solitary pairs of Herons are found breeding in various other parts of the County, and I remember that years ago there was a small colony (of perhaps twenty pairs) in some large cottonwoods about a mile south of Burlington, near my father's farm.

29. *Ardea egretta*. AMERICAN EGRET.—Seen in flocks of six to ten flying northward in the spring, and single individuals are common along the streams during July, August, and the first part of September. I do not think any breed in this County.

30. *Ardea virescens*. GREEN HERON.—This little Heron is a common summer resident, breeding in the tops of small trees along the creeks, and occasionally in apple trees in old orchards. It arrives from the south late in April, and full sets of eggs are found by May 13.

31. *Nycticorax nycticorax nævius*. BLACK-CROWNED NIGHT HERON.—Apparently a very rare migrant. On the evening of April 30, 1878, I shot a female in fine plumage at a small pond near Camden. On November 24, 1884, a young female was killed near Camden and brought to me. Both of these are now in my collection. About September 1, 1887, another specimen was killed near Camden. These are the only specimens of the species I have ever seen or heard of in the County.

32. *Grus mexicana*. SANDHILL CRANE.—A regular migrant, but seldom seen except in the prairie portion of the County. April 7, 1885.

33. *Porzana carolina*. SORA.—A rather common migrant, to be met with about the first week in May if you chance to search for it in suitable places. Common at the Armstrong Pond near Camden, May 9-10, 1885.

34. *Gallinula galeata*. FLORIDA GALLINULE.—One killed near Burlington, April 28, 1883, and another seen May 11, 1885. These are the only specimens of this southern bird that I have ever seen in the State. The last of these was seen in a woodland near Burlington. It was quite tame and I was able to follow it about for some time, driving it from one pile of brush or small thicket to another. It would walk or run slowly, never attempting to fly except when crowded closely. Being without my gun I was unable to secure it. The one killed April 28, 1883, is now in my collection.

35. *Fulica americana*. AMERICAN COOT.—A not uncommon migrant. April 19, 1884; April 8, 1885; November 21, 1884. In the spring of 1885, one was taken May 12.

36. *Philohela minor*. AMERICAN WOODCOCK.—Formerly a rather common summer resident, but now quite rare. Nests early in April. Young able to fly at least as early as July 1.

37. *Gallinago delicata*. WILSON'S SNIFE.—Rather common migrant, most often seen in spring. April 21, 1885; May 1, 1884.

38. *Tringa maculata*. PECTORAL SANDPIPER.—Rare migrant in March and April.
39. *Tringa minutilla*. LEAST SANDPIPER.—Rare migrant.
40. *Ereunetes pusillus*. SEMPALMATED SANDPIPER.—Not uncommon migrant. April 24, 1884; April 21, 1885. A few breed(?).
41. *Limosa fedoa* MARBLED GODWIT.—Very rare migrant. April, 1883.
42. *Totanus melanoleucus*. GREATER YELLOW-LEGS.—Seen occasionally along the streams in spring and autumn.
43. *Totanus flavipes*. YELLOW-LEGS.—Migrant; apparently less common than the preceding.
44. *Totanus solitarius*. SOLITARY SANDPIPER.—Rather common migrant.
45. *Actitis macularia*. SPOTTED SANDPIPER.—Rather common summer resident.
46. *Ægialitis vocifera*. KILLDEER.—Common summer resident. Usually arrives about March 15. None remain over winter.
47. *Colinus virginianus*. BOB-WHITE.—Formerly an abundant resident, but now rare. During the years 1883-1885, I do not think I saw over a hundred Quail in the County. Hard winters and greedy pot-hunters have about exterminated them.
48. *Bonasa umbellus*. RUFFED GROUSE.—A rare resident, small numbers being found in certain localities that I know of. These are usually in heavy undergrowth along the streams. March 7, 1878, one shot. August, 1881, several seen. Several seen in the winter of 1881-82.
49. *Tympanuchus americanus*. PRAIRIE CHICKEN.—Rare resident in the northwest part of the County where they can be heard almost any morning during the early spring. A few years ago they were occasionally seen in the eastern part of the County.
50. *Meleagris gallopavo*. WILD TURKEY.—Up to about 1870 a common resident. During the winter it was a common practice to trap the Wild Turkey in large rail pens. A trench was dug under one side of the pen, and by scattering corn along it the birds were induced into the pen, and when once inside they were unable to see the way out, a broad board being placed over the trench just inside the rails.
- The last that I saw or heard of in the County was in February, 1878, near Camden.
51. *Ectopistes migratorius*. PASSENGER PIGEON.—Until within the past fifteen years Wild Pigeons were very abundant during the spring migrations, and again during the autumn when there was an abundance of 'mast.' Then thousands were caught in nets, especially on the prairie near Pittsburg. A few were killed in the autumn of 1883, and I saw two on May 8, 1884, these being the last I have seen in the County. One seen May 3, 1883. Several seen at Maxinkuckee April 6, 1885.
52. *Zenaidura macroura*. MOURNING DOVE.—An abundant summer resident, and occasionally a few remain all winter. They generally arrive in the spring about March 16, and full sets of eggs are found as

early as April 5. On May 9, 1885, I found a nest of the Dove containing *three* eggs,—the first instance that ever came under my observation of more than two eggs in a nest.

53. *Cathartes aura*. TURKEY BUZZARD.—The Turkey Buzzard is a common summer resident of Carroll County, arriving in the spring early in March. Full sets of eggs were obtained April 23, and again on April 29. March 16, 1884; March 12, 1885.

54. *Circus hudsonius*. MARSH HARRIER.—Spring visitant. I have seen it but rarely. I think it breeds near Lake Maxinkuckee, as I have seen it there in July.

55. *Accipiter velox*. SHARP-SHINNED HAWK.—A very rare resident, seen oftenest in the spring. One gotten October 27, 1884.

56. *Accipiter cooperi*. COOPER'S HAWK.—A rare resident, especially so in winter. Nest with full complement of eggs found May 10, 1883.

57. *Buteo borealis*. RED-TAILED HAWK.—Our most abundant Hawk. While it is resident as a species, yet the individual birds migrate more or less. They appear most numerous in March and April, and again in August and September. I have found young Hawks in the nest as early as April 15.

58. *Buteo lineatus*. RED-SHOULDERED HAWK.—Resident, but less common than the preceding. Breeds about the same time.

59. *Buteo latissimus*. BROAD-WINGED HAWK.—I have occasionally seen this Hawk in spring and autumn. It appears to be rather rare.

60. *Archibuteo lagopus sancti-johannis*. ROUGH-LEGGED HAWK.—A rare winter visitant.

61. *Aquila chrysaëtos*. GOLDEN EAGLE.—A very rare winter visitor. I know of one that was killed in the eastern part of the County in December, 1883.

62. *Haliaëtus leucocephalus*. BALD EAGLE. Rather frequent as a winter visitor. Hardly a winter passes that two or three are not taken in the County. I have noticed them oftenest along the Wabash and the Tippecanoe near which they are said to have bred not many years ago. I have a fine adult male that was caught in the southwestern part of the County, February 20, 1885. Scarcely does an Eagle come into our State now and get away alive, if he tarry more than a day or two.

63. *Falco columbarius*. PIGEON HAWK.—Perhaps a rare resident.

64. *Falco sparverius*. SPARROW HAWK.—A common summer resident, and a few remain all the year.

65. *Pandion haliaëtus carolinensis*. FISH HAWK.—The Osprey is a rare spring and autumn visitant. September 21, 1883; April 22, 1884; September 22, 1884.

66. *Asio wilsonianus*. LONG-EARED OWL.—Seemingly a rare winter visitor. I have specimens obtained January 29, 1884, February 5, 1886, and January 14, 1888.

67. *Asio accipitrinus*. SHORT-EARED OWL.—A very rare winter visitant.

68. *Syrnium nebulosum*. BARRED OWL.—Resident. This is the most common Owl in this part of the State.

69. *Nyctala acadica*. SAW-WHET OWL.—Probably resident,—very rare. The only time I ever saw any Owls of this species in Carroll County was on May 8, 1883. In an old thicket near Burlington, I found six young Saw-whets in a hole in a dead elm. The hole was about twenty feet from the ground, and the young Owls were able to fly quite well. I have heard this Owl at various times in the spring, but these are the only ones seen.

70. *Megascops asio*. SCREECH OWL.—A common resident, but apparently more abundant some years than others. They were particularly abundant in the winter of 1878-79, and again in 1884-85. Perhaps half of those taken in 1878-79 were of the red form, while nearly all those taken since then were gray. A red male was caught at Burlington, January 14, 1888.

71. *Bubo virginianus*. GREAT HORNED OWL.—Next to the Barred Owl, our most common resident.

72. *Nyctea nyctea*. SNOWY OWL.—An extremely rare visitant. One was taken near Camden in the winter of 1865.

[*To be continued.*]

NOTES ON THE NEST AND EGGS OF *PEUCÆA*
ÆSTIVALIS BACHMANI AUD.,
BACHMAN'S SPARROW.

BY CAPT. CHAS. E. BENDIRE.

THE life history of this interesting species is still rather imperfectly known, and as far as I am aware no authentic accounts of its nest and eggs are to be found in any ornithological publications. Even its distribution is not well defined as yet. Mr. William Brewster found it abundant near Charleston, South Carolina, and this seems to be the only point on the Atlantic coast where it has so far been taken. It is said to breed there. See *Auk*, Vol. II, Jan., 1885, p. 106. According to Ridgway's *Manual of North American Birds*, its habitat is given as follows. Southern Atlantic and Gulf States and lower Mississippi Valley, north to North Carolina, eastern Tennessee, Kentucky, southern Illinois and Indiana, west to middle northern Texas. Mr. Wm. Lloyd, in his list of birds of Tom Green and Concho Counties, Texas (*Auk*, Vol. IV, Oct., 1887, p. 292), says: "*Peucæa æstivalis bachmani*, Bachman's Sparrow. Summer visitor in