

BIRDS OF TIPPECANOE COUNTY—IV

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This is the fourth of a series of papers dealing with the avifauna of Tippecanoe County, completing the annotated list of the birds reported from the county. The total reported to date is 230.

190. *Passer domesticus domesticus*. (Linnaeus). English Sparrow. (688.2). Butler in his "Birds of Indiana" says that the English sparrow was first introduced in Lafayette about 1874. They increased rapidly and were very abundant in Tippecanoe County when the senior writer first came to Lafayette in 1888. They were then nesting abundantly everywhere about the town. In the past few years this bird does not seem to have increased so rapidly and is only holding its own or possibly decreasing in numbers. This is particularly noticeable in the cities, perhaps due to the almost complete disappearance of the horse in the towns. The proportion of birds in the country as compared to the cities is much larger than formerly. They begin nesting early in the spring and raise several broods in a season. It will be interesting to note what effect the starling will have upon this species, as they use similar nesting sites.

191. *Dolichonyx oryzivorus*. (Linnaeus). Bobolink. (494). The bobolink 40 years ago seems to have been rather rare in Tippecanoe County and, when found, was quite locally distributed. At that time a few nested regularly on certain farms east of Lafayette and in spring were sometimes seen in a clover field forming a part of the Purdue Campus. In August, flocks were occasionally seen in the meadows near the Wabash river south of Lafayette. They seem gradually to have become more common and are now a not uncommon summer resident of the county. They are still somewhat irregular in occurrence and quite locally distributed. Alfalfa fields seem to be the favorite nesting sites. During the migrations the bobolink is more common than in the nesting season. In the spring they usually arrive around the first of May, and, probably, most of them leave in August (though late summer records are few). The earliest spring date is April 25, 1904, from the records of the Purdue Bird Club. Other dates are April 29, 1928 (M. W. Gardner), May 5, 1890, May 4, 1932, May 7, 1931; a late date for spring arrival is May 10, 1926. Fall dates are Aug. 8, 1932 (flock of 12), Aug. 17, 1893 (large flock), and an unusually late date, Sept. 28, 1929, when D. R. Burtsfield reports a flock of 30.

192. *Sturnella magna magna*. (Linnaeus). Eastern Meadowlark. (501). The meadowlark is an abundant summer resident in the county, and some few are resident in favorable localities. One was flushed a few years ago from under a snow covered tuft of alfalfa in a field just west of West Lafayette. Some years ago they were seen near town nearly every winter but the past few winters few have been seen, possibly due to lack of proper cover. The migrant birds generally arrive in February and become common early in March. Nest and eggs are found by the middle of April. In the fall most of the meadowlarks have left by early November.

193. *Agelaius phoeniceus phoeniceus*. (Linnaeus). Eastern Red-wing. (498). This red-winged blackbird is an abundant summer resident, breeding commonly in all the swamps of the county. These birds are among our earliest spring migrants, arriving in large flocks, but we have no records to indicate that they ever spend the entire winter here. Breeding begins in late April or early May, and the young are mostly out of the nest by early June. It is not until late in the fall that the last flocks depart; so there are only two or three months in the year in which the red-wings are absent from the county. Early dates of arrival and late dates of departure are February 13, 1932 and November 19, 1931. Average dates would be about March 1, and November 10. As swamps are drained this bird will undoubtedly become less abundant.

194. *Icterus spurius*. (Linnaeus). Orchard Oriole. (506). This oriole was formerly much more common in the county than it is now. At present it can not be called a common bird, though some nest in the county each year, and it is a summer resident as well as migrant. The average time of arrival in the spring is about May 1. Early and late spring dates are April 24, 1904 (Purdue Bird Club), and May 17, 1928 (Max Gardner). Skins and eggs are in our collection.

195. *Icterus galbula*. (Linnaeus). Baltimore Oriole. (507). This attractive bird is a common migrant and summer resident of Tippecanoe County and is well known because of its bright colors and characteristic nest. The time of arrival in the spring is quite regular, being the last week in April or first week in May. Nesting begins soon after arrival, and the young are out of the nest about the middle of June. Early and late dates of spring arrival are April 22, 1927, and May 4, 1924. They usually are common soon after the first arrivals appear.

196. *Euphagus carolinus*. (Müller). Rusty Blackbird. (509). The rusty blackbird can hardly be called common but is not an uncommon migrant and, sometimes, winter visitor in the county. It may be more common than records would indicate as it is probably frequently confused with the bronzed grackle. Early and late spring dates are March 2, 1902 (Purdue Bird Club), and April 27, 1927 (D. R. Burtsfield). Fall dates are October 17, 1929 (D. R. Burtsfield), and November 14, 1903. Skins are in our collection.

197. *Quiscalus quiscula aeneus*. Ridgway. Bronzed Grackle (511b). The bronzed grackle is an abundant summer resident and migrant and, in less numbers, a resident in the county. There are records at Lafayette for every month in the year and some winters flocks of 75 or more winter in the towns or around chicken yards and hog pens. The bulk of the birds arrive in February and leave in November. They are usually common before March 1 and remain so until well into November. They nest rather early, and young out of the nest were noted May 24, 1929 (D. R. Burtsfield). The grackles certainly are not decreasing in numbers and, possibly, are becoming more abundant.

198. *Molothrus ater ater*. (Boddaert). Eastern Cowbird. (495). The cowbird is an abundant summer resident and migrant and, perhaps very rarely, a resident, as we have one January record (January 3, 1927). The most of them arrive early in March and leave in Novem-

ber. Early spring and late fall dates are March 8, 1932, and November 24, 1931.

199. *Piranga erythromelas*. Vieillot. Scarlet Tanager. (608). The scarlet tanager 40 years ago was a common migrant and summer resident in some numbers in the county, and flocks were frequently seen on the Purdue Campus during the spring migration. At the present time this bird can hardly be called common, though it is still a regular migrant and nests. The spring migrants usually arrive towards the last of April or early in May but records for their departure in the fall are lacking, probably due to the fact that the female and male in fall plumage are both inconspicuous. Early and late spring dates of arrival are April 25, 1896, and May 11, 1929. Skins are in our collection.

200. *Piranga rubra rubra*. (Linnaeus). Summer Tanager. (610). The only record we have for this county is a sight record by D. R. Burtsfield, who on July 10, 1929, saw one male at Ross Camp in the southern part of the county. It would seem that the range of this bird might occasionally include Tippecanoe County.

201. *Richmondia cardinalis cardinalis*. (Linnaeus). Eastern Cardinal. (593). The cardinal is a common resident of Tippecanoe County and nests commonly, both in the towns and country, wherever shrubbery and undergrowth afford cover. Banding records seem to indicate that the cardinal does not migrate but spends its life in a rather restricted area. In the winter these birds are sometimes seen in small flocks. Nests with eggs are found the latter part of April. The cardinal is extending its range northward in Indiana and is probably more common in the county than formerly.

202. *Hedymeles ludovicianus*. (Linnaeus). Rose-breasted Grosbeak. (595). The rose-breasted grosbeak is a common migrant and, more rarely, a summer resident in the county. It is found both in the towns and in the wooded districts of the country. Spring migrants usually arrive late in April. Typical dates of arrival are April 24, 1904, and 1921, April 28, 1894, May 6, 1903, 1927, 1929. A late fall date is Oct. 8, 1927. Skins and eggs are in our collection.

203. *Passerina cyanea*. (Linnaeus). Indigo Bunting. (598). A common migrant and summer resident throughout the county wherever there is undergrowth or brush for cover. In the spring they arrive about May 1 and are soon nesting. An early date is April 20, 1902 (Purdue Bird Club) and a late date May 11, 1928 and 1929. There are no fall records. A nest with four eggs was found August 8, 1932, at Headley's Lake, and the young were banded August 25. The indigo bunting does not seem to be decreasing in numbers.

204. *Spiza americana*. (Gmelin). Dickcissel. (604). The dickcissel is a common migrant and summer resident throughout the county wherever there are open meadows. It formerly nested on the Purdue University Campus. The spring migrants usually arrive early in May and are in full song when they arrive. Early and late dates of arrival are April 17, 1902 (Purdue Bird Club) and May 12, 1903 (Purdue Bird Club) and 1926. Full records are lacking. Skins and eggs are in our collection.

205. *Hesperiphona vespertina vespertina*. (Cooper). Eastern Evening Grosbeak. (514). The only record of the evening grosbeak for the county is that of a specimen, shot from a small flock, by H. N. McCoy February 1, 1890, about 1½ miles northwest of the Purdue University Campus. The skin was given to the Richmond, Indiana, High School.

206. *Carpodacus purpureus purpureus*. (Gmelin). Eastern Purple Finch. (517). The purple finch is a regular migrant in the county, at times seeming to be fairly common, at others rather rare. It usually arrives early in the spring and possibly winters here occasionally or at least is a winter visitor. Early spring dates are February 23, 1929 (D. R. Burtsfield) and March 1, 1926. A late spring date is April 29, 1902 (Purdue Bird Club). A fall date is October 18, 1929 (D. R. Burtsfield).

207. *Spinus pinus pinus*. (Wilson). Northern Pine Siskin. (533). The pine siskin seems at present to be a rather rare migrant in this county as recent records are very few. Formerly it was seen more frequently and while never common could hardly be called rare. Possibly it was then at times a winter resident. The skins of a male and female in our collection both bear the date Feb. 22, 1897. A recent late spring date is April 27, 1929 (D. R. Burtsfield).

208. *Spinus tristis tristis*. (Linnaeus). Eastern Goldfinch. (529). The goldfinch is a common migrant and summer resident, and in less numbers a resident, of the county; some always wintering here. They usually become common in April and remain in flocks until the breeding season in July. In the fall the most of them leave in September or October.

209. *Loxia curvirostra pusilla*. Gloger. Red Crossbill. (521). The crossbill seems at present to be a rare visitor to the county as there are almost no records for the past 15 years. Formerly these birds were frequently quite common in the spring and early summer, and it is barely possible they may have nested. In 1892 they were seen frequently from March 11 to June 30. In 1895 from March 30 to May 22, and in 1897 from February 22 to May 24. At that time there was an extensive windbreak of evergreens on the north side of the Purdue Campus and an abandoned evergreen nursery ¼ mile north which the birds frequented. Now the nursery is gone, and the windbreak has all but disappeared, and with them has gone the crossbill. A number of skins are in our collection.

210. *Pipilo erythrophthalmus erythrophthalmus*. (Linnaeus). Red-eyed Towhee. (587). The towhee is a migrant and common summer resident of the wooded areas of the county. There seems to be no noticeable increase or decrease in numbers except that as wooded areas get smaller fewer can find nesting sites. It is possible that it is a rare winter resident as there is one winter date, January 1, 1906. The migrants usually arrive in March and are soon common. Early and late spring dates of arrival are March 8, 1902 (Purdue Bird Club) and March 27, 1932. In the fall they usually leave in October. A late date is October 29, 1928 (D. R. Burtsfield).

211. *Passerculus sanwicensis savanna*. (Wilson). Eastern Savannah Sparrow. (542a). The savannah sparrow is a spring migrant but seems rather rare except in the prairie sections of the county. Possibly it is confused with other sparrows and may be more common than reports would indicate. It was quite common on the Wea plains April 16, 1932. Early and late spring dates are April 7, 1929, and May 3, 1925. There are no fall records.

212. *Ammodramus savannarum australis*. Maynard. Eastern Grasshopper Sparrow. (546). The grasshopper sparrow is a migrant and summer resident. Locally it may be fairly common and in other places nearly or entirely lacking. Being inconspicuous it is often overlooked. They were quite common on the Wea Plains April 16, 1932. We have no fall records.

213. *Passerherbulus henslowi henslowi*. (Audubon). Western Henslow's Sparrow. (547a). Henslow's sparrow seems to be quite rare in the county as we have but one sight record, April 7, 1929, when two were seen about a mile northwest of West Lafayette. Probably it is more common than our records indicate.

214. *Pooecetes gramineus gramineus*. (Gmelin). Eastern Vesper Sparrow. (540). The vesper sparrow is a common migrant and less common summer resident in the county. They usually arrive about April 1 and leave in October. Early and late dates of arrival are March 23, 1929 (M. W. Gardner) and April 25, 1925. A late fall date is November 9, 1902 (Purdue Bird Club). This bird does not appear to be as common as 25 years ago. Skins are in our collection.

215. *Chondestes grammacus grammacus*. (Say). Eastern Lark Sparrow. (552). Migrant and summer resident, formerly fairly common but for the past 25 years has been much less common and now appears to be rare. No reason has been assigned for this great decrease in numbers in recent years, for the localities where the bird formerly was found have not changed greatly. Some Purdue Bird Club dates are: April 24, 1902, April 23, 1903, 1904. The only recent record is May 8, 1921, when a single specimen was seen. Skins are in our collection.

216. *Aimophila aestivalis bachmani*. (Audubon). Bachman's Sparrow. (575a). Bachman's sparrow never has been common in the county, but 25 or 30 years ago was reported occasionally. It was a migrant and summer resident and nests have been found. All of our records are for May. The skins of two males in our collection bear the dates May 28, 1904 and May 15, 1906. These were both taken near Lafayette. There are no records for the past fifteen or twenty years.

217. *Junco hyemalis hyemalis*. (Linnaeus). Slate-colored Junco. (567). The slate-colored junco is an abundant migrant and common winter resident. Banding records show that some birds, at least, stay in the same locality for some months during the winter. They usually arrive near the middle of October but are occasionally earlier. Early and late fall dates of arrival are September 21, 1933 and October 19, 1928 and 1931. Another early date is September 22, 1894. The date of departure is usually late in April but sometimes extends into early May. Typical dates are April 21, 1925, April 26, 1930, May 2, 1893.

Early and late dates are April 17, 1927 and May 13, 1931. The latest banding record is May 5, 1933. The birds are often in song before they leave.

218. *Junco oreganus shufeldti*. Coale. Shufeldt's Junco. (567b). The only known record of Shufeldt's junco in Indiana was a specimen killed in West Lafayette on January 20, 1891, by R. S. Wickersham who killed the bird with a sling shot and brought it to one of the writers as food for a captive barn owl. The bird was recognized as something different from the ordinary junco, so was skinned and sent to the Smithsonian Institution for identification. The skin has recently been resubmitted and the identification confirmed by H. C. Oberholser. This skin is now in the collection of A. W. Butler at Indianapolis.

219. *Junco oreganus montanus*. Ridgway. Montana Junco. (567f). A junco which the writers caught in their yard in West Lafayette and banded was identified by them as this species. The bird was captured and banded November 29, 1928 and repeated in the same trap January 3, 1929. The identification was made with the aid of various standard keys, especially Chapman's and by comparison with skins of several species of juncos in our collection, and the writers feel they are quite sure of the identification.

220. *Spizella arborea arborea*. (Wilson). Eastern Tree Sparrow. (559). The tree sparrow is a regular and common migrant and probably winter resident of the county. They usually arrive about the middle of October, are common through the late fall and winter and leave in March and early April for their breeding grounds in the north. An early date of arrival is October 14, 1928 (D. R. Burtsfield), and the latest date of departure in the spring is April 19, 1904 (Purdue Bird Club). Skins are in our collection.

221. *Spizella passerina passerina*. (Bechstein). Eastern Chipping Sparrow. (560). The chipping sparrow is a migrant and common summer resident throughout the county nesting commonly on the Purdue Campus and in the yards of Lafayette and West Lafayette. They are usually singing at the time of arrival and are mated soon after. They usually arrive about the middle of March and leave about the middle of October. The earliest dates of arrival are March 19, 1894, and 1903, and an exceptionally late date is April 12, 1932. The latest fall date is October 27, 1902 (Purdue Bird Club).

222. *Spizella pusilla pusilla*. (Wilson). Eastern Field Sparrow. (563). An abundant migrant and summer resident, nesting wherever there are open woods and fields neighboring open woods. They are quite regular in their arrival in the spring, appearing soon after the middle of March, and are usually singing when they arrive. Our earliest spring date is March 13, 1927 and a late date April 3, 1921. An average date is March 24, 1904 and 1928. Early and late fall dates of departure are October 2, 1929 (D. R. Burtsfield) and October 25, 1924.

223. *Zonotrichia querula*. (Nuttall). Harris's Sparrow. (553). Harris's sparrow evidently is a rare migrant for we have but two records, both in 1933. Tippecanoe County would seem to be at the extreme eastern edge of the range of this bird, though some are found regularly in the Chicago district. May 6, 1933, D. R. Burtsfield brought

to us for identification an adult specimen, which he had just caught and banded at his station in West Lafayette. The bird was released in our yard and May 9 was caught in one of our traps a quarter of a mile from our yard. September 27, 1933, Burtsfield brought to us an immature Harris's sparrow which he had caught at the same place as the first one. Evidently this species is extending its range as there are no previous records for the county.

224. *Zonotrichia leucophrys leucophrys*. (Forster). White-crowned Sparrow. (554). The white-crowned sparrow is a fairly common migrant, apparently more common in the spring than the fall. In the spring they usually arrive around May 1 and leave towards the last of the month. The earliest recorded date of arrival is April 19, 1904 (Purdue Bird Club) and the latest date of departure May 23, 1931. Fall records are few but there are two for 1928, September 29 and October 19. Both are by D. R. Burtsfield. This species seems to be about as common as formerly. There are skins in our collection.

225. *Zonotrichia albicollis* (Gmelin). White-throated Sparrow. (558). The white-throated sparrow is an abundant migrant about equally common in spring and fall. In the spring they usually arrive in April but are somewhat irregular in the date of arrival. An extremely early date is March 4, 1894. A late date of arrival is April 24, 1925 and 1926. A late date of departure is May 22, 1904 (Purdue Bird Club). In the fall they arrive in late September or early October and leave in late October or early November. Early dates of fall arrival and late date of departure are September 20, 1929 and November 5, 1931. There are skins in our collection.

226. *Passerella iliaca iliaca*. (Merrem). Eastern Fox Sparrow. (585). The fox sparrow is a common migrant both in spring and fall. It may rarely be a winter visitor or resident as we have one winter date, January 2, 1925, when one was seen on the Purdue University Campus. It usually arrives in March, an early date being March 4, 1904 (Purdue Bird Club), and leaves in April; a late date is April 19, 1904 (Purdue Bird Club). In the fall the first arrivals come in late September or early October and leave in late October or early November. Early and late fall dates are September 27, 1928 (D. R. Burtsfield) and November 15, 1931. Skins are in our collection.

227. *Melospiza lincolni lincolni*. (Audubon). Lincoln's Sparrow. (583). The Lincoln sparrow is a regular migrant in both spring and fall. It is rarely reported but banding records indicate that it is not uncommon and is overlooked rather than absent. In the spring they are present during May. Early and late dates are May 2, 1925 and May 21, 1931. Fall dates are few. An early one is September 19, 1931 and a late one October 17, 1933 (D. R. Burtsfield).

228. *Melospiza georgiana*. (Latham). Swamp Sparrow. (584). The swamp sparrow is not an uncommon bird in the county but is undoubtedly confused with the song sparrow and is seldom reported. All our records are for the spring and range from March 6, 1894 to May 3, 1932. There are skins in our collection and several banding records. There is no record of this sparrow breeding in the county.

229. *Melospiza melodia beata*. (Bangs). Mississippi Song Sparrow. (581u). The song sparrow is an abundant resident in Tippecanoe County, many staying in the same locality through the year. They begin to sing in February and are nesting by early April. Two or three broods are reared each season. There is no noticeable decrease in this species in the past 40 years.

230. *Calcarius pictus*. (Swainson). Smith's Longspur. (537). The only record for this longspur is April 16, 1932, when eight were seen on the Wea Plains five miles south of Lafayette. A female was secured and the skin is in our collection. This species may be more common than this single record indicates.

THE GROSS ANATOMY OF A TWO-BODIED LAMB

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Through the courtesy of a student, Mr. J. L. Fuelling, there came to my hands late last spring a female lamb exhibiting an interesting duplication of limbs and hind parts of the body. Such monstrosities are, of course, not uncommon, yet because each is usually a little different than any of the others, it seems worth while to make a record of the more gross abnormalities.

The animal in question is reported to have lived for about two hours, having been delivered by a veterinarian from a sheep which had borne a normal lamb the day before. At death it was embalmed with a phenol mixture and thus reached me in a fair state of preservation. I immediately turned the specimen over to two interested students, Mr. Maxwell Power and Mr. W. C. Davis, who carried out the dissections under my direction. Subsequently I made certain supplementary dissections myself.

Externally the lamb presented a single normal-sized head and neck and an undivided though excessively large trunk as far as the middle of the abdomen. At this level there was an abrupt bifurcation of the body, the two portions being complete, full-sized, and each possessed of a tail and pair of hind-legs. The fore-legs were likewise duplicated, but one pair occupied a useless position on the dorsal side of the body. The second pair would have served very creditably.

Observations on the internal anatomy were made from the ventral side, beginning first in the laryngeal region and carried progressively backward.

In the neck a perfectly regular arrangement of organs prevailed. Larynx, thyroid, blood-vessels, etc. appeared to be normal.

Modification of the thoracic cavity and its contained organs consisted primarily of increase in size. The volume of the cavity itself was at least a third above average, being correlated with the peculiar skeletal arrangement of this region to be described below. The lungs were