

1971

A History and Distributional List of Ellis County, Kansas, Birds

Charles A. Ely
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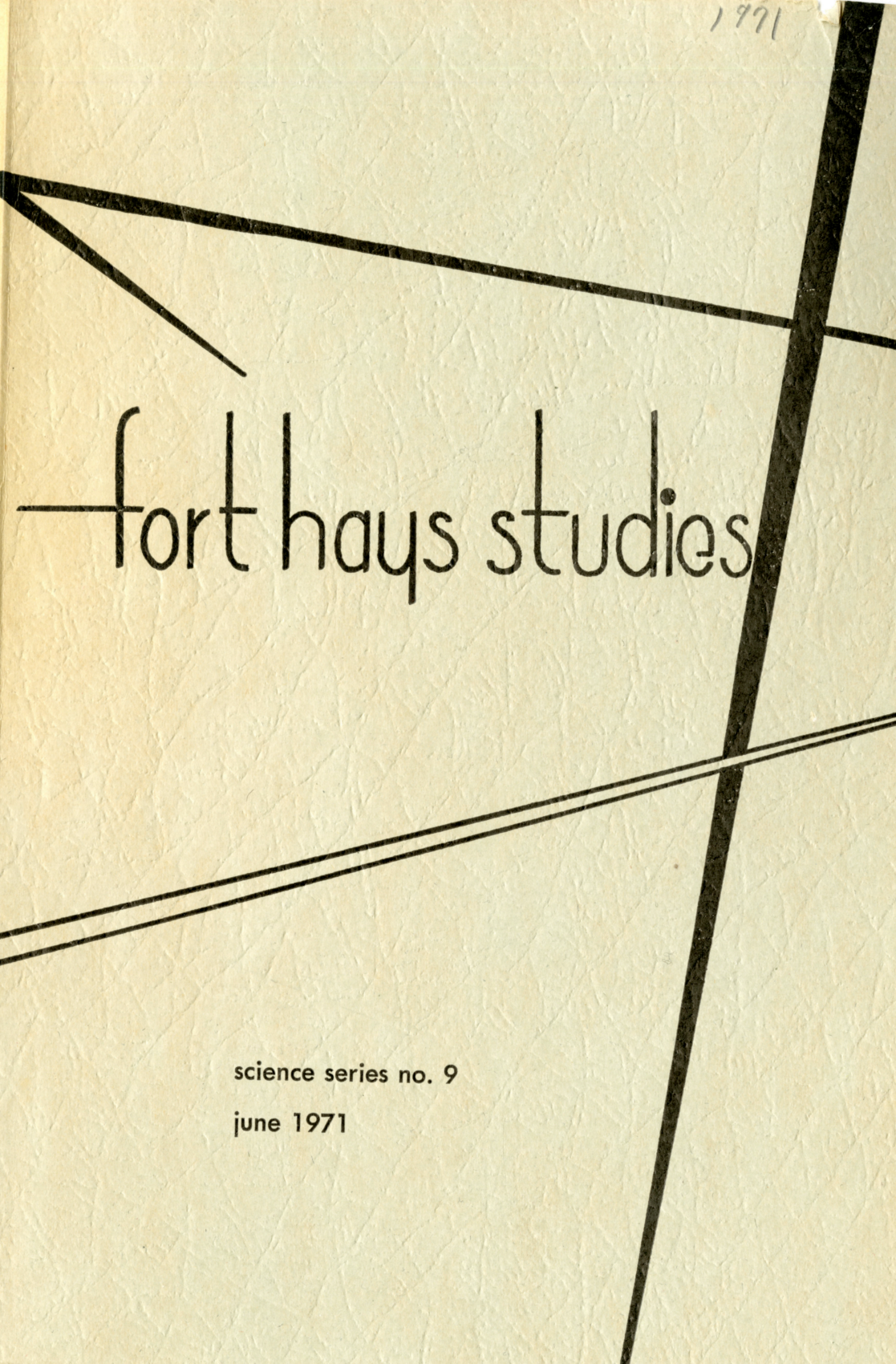
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1971



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Ely, Charles A.

**A History and Distributional List of
Ellis County, Kansas, Birds**

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Hays, Kansas

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Charles A. Ely received his B. S. degree at the Pennsylvania State University and his M. S. and Ph. D. degrees at the University of Oklahoma. He joined the faculty at Fort Hays Kansas State College in 1960 and is presently a Professor of Zoology.

His major research interest is bird distribution and movements. This research has included a three-year leave of absence at the Smithsonian Institution (Pacific Ocean Biological Survey Program) and numerous field trips throughout Mexico and the United States. Local research has focused on better documentation and understanding of distribution and movements of inland songbird populations.

**A History and Distributional List of
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A History and Distributional List of Ellis County, Kansas, Birds

CHARLES A. ELY

INTRODUCTION

This paper marks a century of Ornithology in Ellis County most of it centered around Hays and Ellis. The region has undergone tremendous change during the century and we are fortunate in having some data from presettlement and early settlement days. Such data are available for very few localities in western Kansas. Numerous birders were active during the first half of the 20th century but few of their data were published and most were apparently lost. For example, we have very few observations from the "dust bowl" days of the thirties when bird populations must have been different from those at present. Environmental conditions will undoubtedly change in the future and documentation of present populations and distributions is important.

This paper is an attempt to collect the scattered observations of numerous birders and to encourage others to record their observations for posterity. Much remains to be learned about Ellis County birds and the preparation of this paper points up some of these areas—the need for actual breeding observations; the fall waterfowl migration; the status of various species along the Saline River.

Hopefully, birders will use this paper as a preliminary base and contribute data which will allow better documentation for future workers. The data on which this paper is based are deposited in Forsyth Library, Fort Hays Kansas State College. This paper records ornithological observations through 31 December 1970.

Topography and Land Use.—Ellis County, located in west-central Kansas is 30 miles square with a total area of 900 square miles or 576,000 acres (Figure 1). Elevation varies from 2400 feet in the southwest to 1700 feet in the northeast. The topography is basically smooth and gently sloping from west to east with rough breaks and canyons along the Saline and Smoky Hill Rivers. These streams cross the county from west to east: the Smoky Hill River near the south boundary; Big Creek near the center of the county; the Saline River near the north boundary.

Ellis County is primarily agricultural and recent data supplied

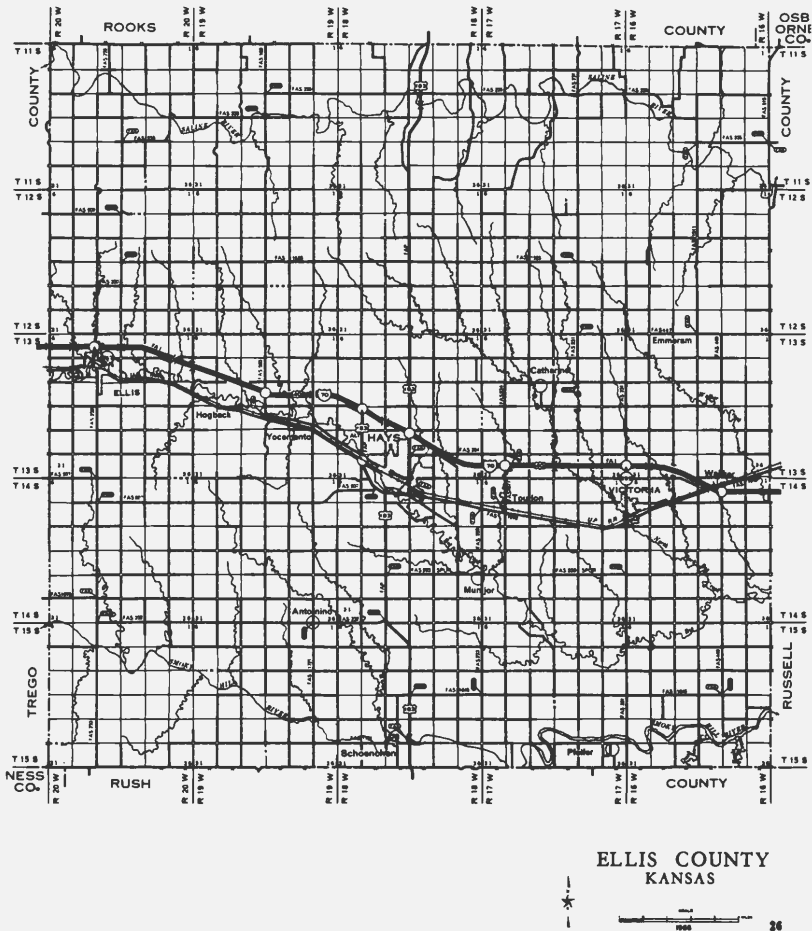


FIGURE 1. Map of Ellis County, Kansas.

by Mr. Bert Soderblom (Ellis County Unit, Soil Conservation Service, U. S. D. A.) indicate that over 95 percent of the area is potential farm or ranch land. The remainder consists of urban areas, roads and miscellaneous categories. At present about 53 percent of the county is under cultivation and about 40 percent is range land. Water areas, chiefly farm ponds and small impoundments (most of them fairly recent), comprise 6613 acres. Of great importance to the avifauna is an estimated 400 acres of woodland along watercourses and in ravines. Also of significance are the extensive tree plantings in towns and on farms and over 550 acres of rural windbreaks.

Climate.—Over half a century of weather records from the Fort Hays Experiment Station at Hays were published by Luebs (1962). The average annual temperature for the 52 years from 1907-1958 was 54 degrees Fahrenheit and monthly averages ranged from 29 degrees in January to 80 degrees in July. The growing season (April-September) average was 69 degrees. Extreme temperatures were — 24 and 117 degrees. The average frost-free period was 170 days; the average dates of last and first frosts were 28 April and 15 October respectively.

The 52-year precipitation average was 21.67 inches (the 91-year average (1868-1958) was 22.90 inches). Extremes were 9.52 inches in 1956 and 38.12 inches in 1951. The average monthly rainfall increases in spring until May or June then tapers off. Rainfall is characterized by wide fluctuations but usually about 77 percent falls during the growing season. Average seasonal evaporation is three times the average seasonal rainfall. Snowfall averaged 19.6 inches over a 40 year period with most of it occurring during February and March. The average wind velocity during the period April-September was 8.0 mph averaging 10.0 mph in April and 6.6 mph in August.

Vegetation.—The original vegetation was described in general terms by J. Allen (1872) as observed by him in 1871. The plains consisted of short grass, “. . . usually but two or three inches high, except in the hollows and near the streams, where it often grows to the height of one or two feet.” He was much impressed with the riparian habitat as expressed by his final comment (p. 134) “The most striking feature of the avian fauna here is the great abundance of more or less strictly woodland species, considering the scantiness of forest vegetation,” and again (p. 132) “. . . tree-nesting species are very abundant . . . frequently half a dozen pairs of nearly as many species breeding in a single tree.” Trees were confined to the immediate vicinity of the streams and consisted of white and red elms, boxelder, cottonwood, black walnut and ash, with little undergrowth. Most of the virgin tree growth had, however, been removed within 15 to 20 miles of Fort Hays. Few trees occurred on the Smoky Hill River west of Hays and those on the Saline did not extend much farther westward. The best woodland was on the Fort Hays Military Reservation on Big Creek.

Detailed studies of local prairies initiated by F. W. Albertson in 1932 were continued by a succession of his students and several ungrazed areas near Hays have been under continuous study since that time (Albertson and Tomanek, 1965). Native grassland today

consists of mixed grass prairie of three major types. Short grass, primarily buffalo grass and blue grama, dominates on deep, mature soils of uplands and gentle clay slopes. Scattered mid-grasses and numerous forbs (including few-flowered scurfpea and western ragweed) are also present. Rolling topography (hillsides and gentle ravines) with shallower soils are dominated by scattered clumps of little blue stem with smaller amounts of mid-grasses and numerous forbs including skullcap and bladderpod. Tall grasses, primarily big blue stem and switchgrass, and the mid-grass, side-oats grama, together with such forbs as leadplant are dominant on the deeper soils of ravines and lowlands. Break sites, where limestone outcrops near hill-tops, are more open and small thickets of skunkbrush often occur. Woody vegetation occurring in ravines include buckbrush and occasional hackberry and elm trees.



FIGURE 2. Relict grassland (mixed prairie) with cultivated fields and Hays in background.

The woody vegetation along waterways includes the following species: green ash, hackberry, boxelder, willows, wild grape, poison ivy and chokecherry. Wild plum and smooth sumac are locally important on some drier sites. Woody vegetation (both trees and shrubby undergrowth) is better developed along the Saline River



FIGURE 3. Moderately grazed prairie in College Pasture.



FIGURE 4. Moderately grazed prairie south of Saline River in northeastern Ellis County.

than along the Smoky Hill River (Griswold, 1942) and this is reflected in the respective bird populations. Woody vegetation along Big Creek is less continuous due to greater agricultural activity along its banks. Windbreaks and timber claims usually consist of several of the following species: red cedar, osage orange, elm, russian olive and honey-locust.



FIGURE 5. Riparian growth at permanent spring near Smoky Hill River.

Of great importance to birds are the numerous planting of berry- and fruit-bearing trees and shrubs and ornamental evergreens planted in towns, on farms and especially on the grounds of the Fort Hays Experiment Station and the Fort Hays Kansas State College (hereafter referred to as FHKSC).

County History.—The area that is now Ellis County holds an important and colorful place in the early history of western Kansas (Hill, 1938; Dale, 1964). The earliest recorded white settlement was a trading post established in 1859 at the junction of North Fork and Big Creek, 14 miles southeast of present Hays. Fort Fletcher, built on this site in 1865, was renamed Fort Hays in 1866 and the next year, after a disastrous flood, was moved to its present location. Two settlements, Rome (founded by “Buffalo Bill” Cody) and Hays sprang up nearby amid a rivalry settled only when the



FIGURE 6. Cottonwood grove at permanent spring north of Hays.



FIGURE 7. Riparian growth characteristic of major streams.

Kansas Pacific Railroad (now the Union Pacific) established its depot at Hays. Ellis County was formed in 1867 and Hays became the county seat in 1870. That same year the Kansas Pacific estab-

lished its division point and railroad shops at the present site of Ellis and in 1873 that town was surveyed.

The only other settlements in Ellis County at this time were stations along the Butterfield Overland Dispatch route which roughly paralleled the Smoky Hill River. This line was soon abandoned due to Indian harassment and railroad competition. Nearly all county inhabitants were associated with the fort, railroad or stage line. Agriculture was first attempted at Hays in 1870 and at Ellis the following year. An estimated dozen homesteads were present by the spring of 1872. Hays was an important freight depot for the northward extension of the Santa Fe Trail from 1867 to 1872. Ellis was an important cattle shipping point in 1887 and 1888. Fort Hays was abandoned in 1889 and in 1956 the railroad shops in Ellis closed. After this point agriculture, ranching and oil became the base of the county economy. Hays remains a major business and educational center for northwest Kansas.

Ornithological Activity

History.—Ellis County ornithology is marked by three periods of activity. Allen and Watson did the pioneering work during the latter part of the 19th century at Hays and Ellis respectively. Wooster and others were active at Fort Hays Kansas State College during the first half of the 20th century especially from about 1920 through 1930. The present study, also centered at Fort Hays Kansas State College, was initiated in 1960.

Although early explorers undoubtedly observed and noted birds in what is now Ellis County, the first formal exploration was in June 1871 when J. A. Allen visited Fort Hays and prepared an annotated list of 61 species (Allen, 1872). Allen spent 35 consecutive days (during the period 26 May to 3 July) thoroughly exploring an area within a 15 to 30 mile radius of the Fort, including parts of the Saline and Smoky Hill Rivers and Big Timber and Big Creeks. Allen's work is extremely valuable in that it provides our only description of breeding birds (in Ellis County) under near primeval conditions. Chestnut-collared Longspurs were breeding commonly throughout the prairie; Cassin's Sparrows were rather common along the streams; Long-billed Curlews and (possibly) Mountain Plover were breeding on the plains. Turkeys and Sharp-tailed Grouse were common along the streams. The latter had not yet been replaced by the Prairie Chicken which was then (with the Bobwhite) moving in from the east. An Eskimo Curlew (now extinct) was also collected (but published as a Hudsonian Curlew). A few Common Ravens were seen, probably associated with the buffalo

herds and a family of Peregrine Falcons was nesting on a cliff on the Saline River. With increasing settlement, elimination of the buffalo and destruction of the prairie these species were eliminated or moved westward and most are no longer a part of the breeding Kansas avifauna.

Woodland birds fared better and most species recorded by Allen (except such birds as the Eastern Bluebird) have probably maintained or even increased their numbers. Woodpeckers (except for the Red-headed) seem to have been uncommon and surprisingly the flickers (described as "rather rare, very wary") seem to have been hybrids. A *Spinus* with the call note of a Pine Siskin, in the light of present knowledge, may actually have been that species.

Louis Watson, an Ellis doctor, made very important contributions during the decade 1875-1885. Although lame he hunted by horse and buggy and collected a wide variety of important biological specimens from invertebrates to birds. Many of these were duly sent to experts for identification and study. Most of his bird specimens were sent in the flesh to F. H. Snow at the University of Kansas. These specimens and observations comprise our only material from the early settlement period. Although he apparently published none of his observations himself, many of them were reported in the various Kansas "lists" and in at least three journals of that period (Forest and Stream, the Oologist and the Ornithologist and Oologist). He also contributed 1884 spring arrival dates for Cooke's (1888) pioneer work on migration.

Dr. Watson was interested in both agriculture and natural history and is credited with planting the first wheat in Ellis. In 1873 when an agricultural expert and experimenter was sent to Ellis by the Kansas Pacific Railroad to determine what crops would grow there, Watson became his assistant. Comments made by an early resident (*in* Dale, 1946, p. 53) concerning Watson give some insight into his personality and with few changes could apply to many birders of today. "Dr. Watson . . . was much more interested in assisting Mr. Arrowsmith in his scientific experiments than he was in the ailments of his patients, and whenever his horse "Tobia" and buggy were sighted out on the prairie, there also could be found Dr. Watson."

Bird study in the 20th century has centered around personnel at Fort Hays Kansas State College. The biology program at the college recognized the importance of field observations almost since its inception. The first Zoology course was offered in 1904-05 (H. L. Kent) during the third year of the college's existence (as the

Western State Normal School). A course in Field Biology added three years later emphasized birds and insects. The addition of L. D. Wooster to the staff during the spring of 1909 stimulated interest in Nature Study and eventually resulted in a special course in this area in which birds were given major importance. By 1924 Ornithology was offered as a summer course and in 1936 it became a formal course dealing with "advanced systematics and ecological bird study."

Bird study for school children was an important part of two Nature Study Bulletins published in 1917 and 1925. A considerable amount of bird watching was undertaken during these years under the direction of Dr. Wooster and later by Eastman (1948-53) and others. As Dr. Wooster became involved in administration, less and less time was devoted to birding. The few published notes, term papers and field lists surviving this period have been assembled and deposited in Forsyth Library. These data are cited in this paper as Wooster, *et al.* but each individual source is listed under that reference in the Literature Cited.

Mr. C. W. Miller, a local taxidermist, contributed much mounted material to the college museum during this same period but inadequate cataloguing over the years leaves this material with minimal value.

Severe drought struck Ellis County from 1933-1939 and from 1952-1956. Vegetation was most seriously affected by the 1933-1939 drought but made a rapid recovery. Vegetation returned to normal more slowly after the second drought.

Ellis County was near the eastern edge of the "dust bowl" in the thirties but conditions were severe. Annual precipitation was well below average for seven consecutive years and this was combined with above average evaporation, high temperatures and increased wind with blowing dust. Changes in the native vegetation involved both loss of cover and changes in species composition. Heavily sodded native prairie was least affected by the drought. Large areas of cultivated land and exposed prairie were bare or nearly bare of vegetation. Depressions and level land were often covered with a dust layer. Even the hardiest weeds died before making full growth and cactus (*Opuntia*) multiplied greatly and dominated large areas. Many trees died, especially those in exposed areas.

Andrew Riegel (personal communication) began work in the area in 1937 and reports that insects, small mammals and birds were all affected seriously. Most prairie species decreased greatly in numbers but Lark Buntings actually increased and nested safely in

cactus clumps. Kingbirds returned as usual in spring but apparently deserted the area without nesting. Unfortunately we have few notes and no census counts for this period—the most drastic event in a century.

The present study was initiated in September 1960 and the next three years were devoted primarily to the collecting of local observations such as migration dates and the development of a teaching and research bird collection. Several graduate students conducted local research and a modest banding program was begun. During 1963-66 ornithological activities were limited to observations made by local birders primarily Marvin E. Rolfs.

September 1966 marks the beginning of several long range studies. A mist-netting station was established on Big Creek and became part of the nationwide "Operation Recovery" program during the fall seasons of 1967-1969. Participation in the Fish and Wildlife's Breeding Bird Survey was begun in 1967. In June 1968 a series of nine census routes, patterned after the FWS routes, were established in Ellis County. The county was divided into nine equal 10-mile square units (100 square miles) and a 12½-mile roadside census was established in each. These routes provide detailed study of distribution in Ellis County and will in time provide the basis for quantitative analysis of local population changes. About 20 censuses were conducted between July 1968 and February 1969. Since then the routes have been censused only for breeding birds during June or early July. Research on various local species and problems was also conducted during this period.

Present plans are to continue the long range studies described above and to continue numerous specific local research projects. Continued publication will make these findings available for other workers. This program is intended to establish a better base for future ornithological studies.

Birding Areas.—The casual visitor to Ellis County may find it difficult to believe that 265 bird species have been recorded within the area. The variety of species is limited in cultivated areas and in grasslands but a combination of water and wooded vegetation usually results in habitat favorable to a variety of species at any season.

The better birding spots are of limited size and many are on private land, in which case the birder should always secure permission from the owner or tenant before entering the area. One of the best birding spots in Ellis County is on the Harold Kraus farm 2 miles west and 3 miles south of Antonino. Present there

are a large, deep pond, a small wooded wet area and springs which remain open during most winters. Nearby are cultivated fields and just south of the pond is the Smoky Hill River with additional riparian habitat and pasture land.

Favorable areas for observing woodland birds are present in small areas near most river crossings especially those over the Saline River. One can usually obtain permission to walk into these areas. Big Creek, especially through the Fort Hays Experiment Station grounds, has many species and even the parks in south Hays have many woodland species during migration. Ornamental plantings on the Experiment Station, in urban Hays and on the Fort Hays Kansas State College campus are excellent for winter birds. Another promising wooded area is 7 miles north of Ellis along the bluffs south of the Saline River.

Ducks, other waterbirds and shorebirds can be observed in season on the numerous farm ponds and small lakes especially those in the southwest part of the county. A pond, readily visible from the road, 2½ miles west of Antonino has been good. Rohr-Jacobs Lake (private) and Moore's Ponds (posted) both south and west of Antonino are good for both waterfowl and woodland species. Shorebirds can often be seen along the Saline River from the bridge about 12 miles north of Ellis.

In summer, grassland birds are best seen on the College Farm and from county roads in the northern third of the county, especially in the range land of the northeastern part. In winter, open country birds are best seen in the irrigated southwestern portion of the county. Huge numbers of longspurs and a good variety of raptors including both eagles and the Ferruginous Hawk are usually present.

Most of the Ellis County marshes are either pastured or are dry much of the time and rarely does this habitat persist for an entire nesting season. However, in wet years stands of cattails and rushes develop on Duck Creek Marsh (about 5 miles east of Pfeifer) and at Rohr-Jacobs Lake. Small marshy areas develop as seepage below farm ponds and along the rivers and harbor snipe and rails during migration and a variety of species during winter.

Local Mid-Winter Counts.—Dr. L. D. Wooster led regular mid-winter counts during his tenure at Fort Hays Kansas State College and these became a popular annual event. Results of 26 counts covering a period of nearly 50 years were published but the great variation in areas covered, observation times and observers negates any valid discussion of population changes during this period.

The four earliest counts, between 1923 and 1931, were of three and one-half to six hours duration and were limited to the Hays area. Counts between 1945 and 1957 included the cedar bluffs on the Saline River north of Hays. When the cedar bluffs area was closed by the landowner the census was moved to the southwest, and at least during the years 1958-1960 included part of Cedar Bluff Reservoir in Trego County. This move resulted in abnormally high counts of water birds for those years. Since 1961 counts were

TABLE 1. Hays Christmas counts 1921-1930.

	26 Dec. 1921	22 Dec. 1924	24 Dec. 1926	22 Dec. 1930
Duck sp.	1			
Swainson's Hawk				1 ³
Rough-legged Hawk				5
Ferruginous Hawk				1
Golden Eagle				3
Marsh Hawk				7
Prairie Falcon				1
Sparrow Hawk			3	1
Hawk sp.	1	1	2	
Prairie Chicken	7	2		
Belted Kingfisher	1			
Yellow-shafted Flicker		3		1
Red-shafted Flicker	1	1	2	
Hairy Woodpecker	6	1	2	1
Downy Woodpecker	3	2	1	3
Horned Lark	19	22	100+	400+
Crow	300-400	9	35	1
Black-capped Chickadee	28	8	10	7
Brown Creeper		2	1	
Robin			1	
Townsend's Solitaire			2	
Golden-crowned Kinglet		2 ¹	1 ²	
Bohemian Waxwing			4	
Cedar Waxwing			1	
House Sparrow		10	*	34
Western Meadowlark	7	1	5	5
American Goldfinch				2
Savannah Sparrow ?	1			
Slate-colored Junco	30	24	35	50
Tree Sparrow		20	25	35
Fox Sparrow				3
Lapland Longspur		500-600	1,000+	
Number of Species	11	14	18	19
Number of Individuals	455	658	1,230	561

1. See Kansas State Teachers College at Hays Bulletin, 1925, Vol. 15.
2. Seen on 23 Dec. 1924.
3. Identification doubtful.
 - recorded as numerous.

Table 2. Hays Christmas Counts 1945-1971

	23 Dec. 1945	21 Dec. 1946	1 Jan. 1950	29 Dec. 1950	26 Dec. 1951	27 Dec. 1952	29 Dec. 1953	27 Dec. 1954	27 Dec. 1955	27 Dec. 1956	30 Dec. 1957	29 Dec. 1958*	28 Dec. 1959*	28 Dec. 1960*	1 Jan. 1962	31 Dec. 1962	28 Dec. 1963	30 Dec. 1964	29 Dec. 1965	31 Dec. 1966	1 Jan. 1968	23 Dec. 1968	6 Jan. 1970	28 Dec. 1970	Total
Eared Grebe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Pied-billed Grebe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Double-crested Cormorant	-	-	-	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20
Canada Goose	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-	-	-	-	-	70
Mallard	-	-	-	-	-	-	-	-	-	5	262	250	1,600	-	-	-	14	-	235	171	1	2	18,000	3	20,543
Black Duck	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	
Pintail	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	1	7	
Green-winged Teal	-	-	-	-	-	-	-	-	-	-	-	-	23	-	-	-	-	-	-	-	-	-	-	-	23
*Blue-winged Teal	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Redhead	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	8
*Common Merganser	-	-	-	-	-	-	-	-	-	-	111	-	450	-	-	-	-	-	-	-	-	-	-	-	561
*Red-breasted Merganser	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-	200
Sharp-shinned Hawk	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1	-	3	
Cooper's Hawk	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	4	
Red-tailed Hawk	-	-	-	-	-	1	-	1	-	-	1	-	2	5	1	-	6	3	-	10	12	7	6	55	
*Swainson's Hawk	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	
Rough-legged Hawk	4	1	2	5	1	-	-	2	-	-	-	4	11	11	7	8	4	9	2	26	26	3	15	141	
Ferruginous Hawk	-	1	-	1	-	1	1	-	-	-	-	-	6	-	1	-	1	-	2	-	7	2	2	24	
Golden Eagle	16	13	-	3	3	-	1	-	-	-	4	3	3	3	-	2	-	1	1	1	-	1	4	59	
Bald Eagle	-	-	1	1	-	4	3	3	1	-	4	2	3	1	-	2	5	2	3	3	1	-	2	111	
Marsh Hawk	17	6	-	2	9	3	4	1	7	2	17	42	10	16	29	16	8	14	6	13	22	16	26	5	291
Prairie Falcon	-	-	1	2	-	2	1	2	-	-	4	1	-	1	1	3	-	-	-	1	-	2	-	21	
Sparrow Hawk	-	-	-	2	1	2	1	2	4	5	5	4	4	5	8	4	3	3	2	2	3	6	1	1	68
Unidentified Hawk	3	-	-	-	-	-	-	-	-	-	-	-	-	-	8	1	-	4	-	-	5	1	2	24	
Bobwhite	-	-	-	-	15	15	-	-	-	-	-	-	-	-	-	-	-	-	3	-	49	7	30	119	
Ring-necked Pheasant	31	13	-	1	5	56	24	24	14	19	3	54	20	61	7	9	16	3	2	71	55	49	1	2	540
Killdeer	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	2	-	1	1	2	1	1	1	9	
Common Snipe	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	6	
*Coot	-	-	-	-	-	-	-	-	-	-	-	12	5	-	-	-	-	-	-	-	-	-	-	-	17
*Herring Gull	-	-	-	-	-	-	-	-	-	-	18	-	5	-	-	-	-	-	-	-	-	-	-	-	23
*Ring-billed Gull	-	-	-	-	-	-	-	-	50	-	128	20	10	-	50	40	140	56	-	68	73	123	109	146	1,013
Rock Dove	-	-	-	-	-	-	-	-	-	-	24	-	37	16	4	25	-	5	3	51	16	1	-	189	
Mourning Dove	-	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Barn Owl	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Screech Owl	-	1	-	-	1	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	3	
Horned Owl	1	-	-	3	2	5	3	6	3	3	1	1	5	4	5	4	1	3	4	1	9	10	6	5	82
*Barred Owl	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	
Long-eared Owl	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	1	-	-	-	1	-	-	6	
Short-eared Owl	-	-	-	-	2	-	-	1	2	-	-	1	-	-	-	-	-	-	-	-	10	1	1	18	
Hawk Owl	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Belted Kingfisher	1	-	-	1	-	2	1	1	2	1	1	1	3	2	-	1	4	3	4	1	3	2	3	33	
Yellow-shafted Flicker	-	12	-	2	-	2	-	-	4	3	4	10	8	4	5	4	2	6	1	6	17	2	17	94	
Red-shafted Flicker	1	14	1	5	8	1	3	6	2	-	3	9	-	13	2	8	9	3	3	6	5	15	14	2	133
Unidentified Flicker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	8	
Red-bellied Woodpecker	-	-	-	-	-	-	-	-	-	1	-	1	-	-	2	1	-	2	1	-	1	-	2	11	
Yellow-bel. Sapsucker	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	4	
Hairy Woodpecker	2	2	3	-	2	2	2	5	7	3	3	4	1	7	1	3	5	6	3	3	3	1	2	70	
Downy Woodpecker	2	7	1	3	4	4	-	4	7	2	8	6	5	5	8	4	11	7	5	1	7	9	5	5	120
*Arkansas Kingbird	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	
Horned Lark	600	200	250	-	27	86	42	234	28	1,000	193	10	230	497	165	130	95	62	1,227	1,567	6,242	249	818	13,952	
Blue Jay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	-	3	-	-	4	
Black-billed Magpie	3	1	-	10	6	-	1	-	-	-	-	-	3	-	1	-	1	-	4	3	2	1	3	1	40
Common Crow	700	55	-	15	7	16	15	9	32	253	124	98	50	25	7	9	10	119	11	13	40	33	63	21	1,725
Black-capped Chickadee	1	27	22	14	12	12	31	35	73	21	11	27	30	17	13	16	38	35	30	31	16	50	14	36	612

centered near Antonino and covered roughly the southwestern quarter of the county.

The early counts are important because they provide many of the few data available from that period. Table 1 summarizes the counts between 1923 and 1930. The first counts were published in *Bird-lore* and the 1924 count was reprinted in modified form in a nature study booklet (Wooster, 1925). Table 2 summarizes all later counts. Most of these were published, often in both the *Kansas Ornithological Society Bulletin* and in *Audubon Field Notes* (Table 3). The two published accounts for a given year frequently contained errors and discrepancies, partly because of compiler errors and partly because of the differing editorial policies of the two journals. The counts as listed in Table 2 are from the original compilation whenever possible. Species and counts marked with an asterisk contain misidentified birds and/or birds seen outside Ellis County.

Bird-banding.—The only large-scale banding of passerine birds in western Kansas has been in Ellis County. Bird-banding was initiated in Hays by Dr. Lyman D. Wooster in 1924 and consisted primarily of birds captured in campus buildings and recently fledged birds. Some winter trapping was done especially by Jack Eades and Harold Hopkins. Although some of these records are undoubtedly in error, they are nevertheless important because they provide some of the few written records for this time period. Casual banding was continued in later years by Edwin Martin, Don Cheg-widden and Gerald Tomanek. Birds banded during this period are tabulated in Table 4.

Ely and his students assumed the banding activities in September 1960. Graduate studies of the Mourning Dove (Max Schroeder), Red-wing (John Harksen) and Common Grackle (Gerald Lindsey) resulted in the banding of fair numbers of these species. Most banding was of nestlings supplemented by netting and trapping near nest sites and some winter trapping. Birds banded during the period 1960-1964 are tabulated in Table 5.

A mist-netting station was established on Big Creek near Fort Hays Kansas State College in September 1966 and through December 1970 resulted in the banding of 18,847 birds of 123 species and 481 returns and recoveries. Sub-permittee Richard Weber began a netting operation on Big Creek near Ellis in November 1970 and is already contributing important data. Results of this period are presented in a summary report (Ely, 1971) and provide the basis for many of the data presented in the present paper. Table 6 presents the basic statistics concerning the netting program. Table

TABLE 3. Publication information for Hays Christmas Counts.

Date of Census	Compiler	Date of Publication	Publication		
			<i>Bird-lore</i>	<i>Kans. Orn. Soc. Bull.</i>	<i>Audubon F. Notes</i>
26 Dec. 1921...	Wooster	1922	24:37*		
22 Dec. 1924...	Wooster	1925	25:55-56		
24 Dec. 1926...	Wooster	1927	29:46		
22 Dec. 1930...	Wooster	1931	33:71		
23 Dec. 1945...	Wooster	unpublished			
21 Dec. 1946...	Wooster	1947			1:101
1 Jan. 1950...	Eastman	1950		1:1-3	
29 Dec. 1950...	Wooster	1951		2:3-4	5:153
26 Dec. 1951...	Wooster	1952		3:3-4	6:145
27 Dec. 1952...	Wooster	1953		4:5	7:156
29 Dec. 1953...	Wooster	1954		5:4-6	8:183
27 Dec. 1954...	Wooster	1955		6:3-5	9:193
27 Dec. 1955...	Martin	1956		7:1-4	10:186
27 Dec. 1956...	Martin	1957		8:3-6	
	Wooster	1957			11:193
30 Dec. 1957...	Wooster	1958		9:2-5	
	Martin	1958			12:201
29 Dec. 1958...	Wooster	1959		10:1-3	
	Martin	1959			13:212
28 Dec. 1959...	Walker	1960		11:3-5	14:226
28 Dec. 1960...	Ely	1961		12:4-6	15:240
1 Jan. 1962...	Ely	1962		13:3-5	16:238
31 Dec. 1962...	Ely	1963		14:4-6	17:231
28 Dec. 1963...	Lindsey	1964		15:3	18:253
30 Dec. 1964...	Locke	1965		16:3-5	19:269
29 Dec. 1965...	Farney	1966			20:304
31 Dec. 1966...	Mollhagen	1967		18:4-6	21:293
1 Jan. 1968...	Ely	1968		19:4-6	22:311
23 Dec. 1968...	Ely	1969		20:2-4	23:339
6 Jan. 1970...	Ely	1970		21:2-5	
28 Dec. 1970...	Ely	1971		22:2-5	in press

* Volume and page numbers.

7 lists the 10 most commonly banded species and Table 8 gives a listing of birds banded since the station went into operation. Returns and local recoveries are tabulated in Table 9. A *return* is a bird handled in the area of banding 90 days or more after banding or last handling. A *local recovery* is a bird found dead in the area after a similar period. The 28 *foreign recoveries* (birds found dead or alive outside the banding area) represent 10 species and are detailed in the 1971 summary. A summary of banding data is also included under the appropriate species account in this paper.

The banding operation has added significant data in addition to banded birds. The nets are in near continuous operation during

the migrating season and act as permanent observers thus sampling the area more effectively than can a person with binoculars. Shy species of dense vegetation that are infrequently seen are regularly

TABLE 4. Birds banded in Ellis County prior to 1960.

Species	1920-1929	1930-1939	1940-1949	1950-1959	Totals
Sparrow Hawk.....	8				8
Marsh Hawk.....		3			3
Mourning Dove.....				2 ¹	2
Yellow-billed Cuckoo.....		1			1
Barn Owl.....		5			5
Screech Owl.....	2		2		4
Horned Owl.....		1 ²			1
Short-eared Owl.....			7		7
Common Nighthawk.....	1				1
Yellow-shafted Flicker.....	4		1		5
Western Kingbird.....			1		1
Rough-winged Swallow.....	2 ³				2
Blue Jay.....	3	2			5
Black-capped Chickadee.....	1	1	1		3
House Wren.....	2	3	3		8
Rock Wren.....	1				1
Brown Thrasher.....	4	2			6
Robin.....	2	3	7		12
Swainson's Thrush.....	1		1		2
Mountain Bluebird.....		1			1
Townsend's Solitaire.....	1				1
Loggerhead Shrike.....	1				1
European Starling.....			5	7	12
Tennessee Warbler.....		1 ⁴			1
Yellow Warbler.....	1				1
House Sparrow.....				5	5
Orchard Oriole.....		1			1
Baltimore Oriole.....	2		1		3
Black-headed Grosbeak.....	2				2
Pine Siskin.....		1			1
Savannah Sparrow.....		1			1
Grasshopper Sparrow.....	1				1
Lark Sparrow.....			1		1
Slate-colored Junco.....		13	9		22
Oregon Junco.....			7		7
Tree Sparrow.....	1				1
Field Sparrow.....	1	4	2		7
Harris Sparrow.....	5 ⁵	25	1		31
White-crowned Sparrow.....		1			1
Lincoln Sparrow.....			1		1
Song Sparrow.....	1				1
Lapland Longspur.....	7				7
Totals.....	54	69	50	14	187

1. An adult banded at Hays April 27, 1950 was shot near Schroeder, Goliad Co., Texas on November 25, 1950.
2. Banded as nestling at Hays May 17, 1941; recovered at Russell, Kansas about June 23, 1942.
3. Originally banded as "Bank" Swallows.
4. Probably misidentified.
5. One banded at Hays November 23, 1929; killed at Stoneberg, Texas on December 1, 1930.

netted and held for positive identification. Netting provided valuable data concerning the status of many different species such as the *Empidonax* and *Contopus* flycatchers, *Oporornis* warblers and *Hylocichla* thrushes. Most of the "early" or "late" sightings are of netted individuals and several species are known locally only from netted birds. The time involved in working nets increases the

TABLE 5. Birds banded in Ellis County, 1960-1964.

Species	1960	1961	1962	1963	1964	Totals
Red-tailed Hawk			1			1
Franklin Gull		1				1
Mourning Dove		157	142	153	77	529
Barn Owl		1				1
Screech Owl	1					1
Common Nighthawk			2			2
Hairy Woodpecker				2		2
Downy Woodpecker				2		2
Eastern Kingbird		4	7			11
Western Kingbird		9	1	1		11
Barn Swallow				13		13
Blue Jay		5	8	1		14
Crow		4				4
House Wren		1				1
Mockingbird				1		1
Brown Thrasher		1	11	9	3	24
Robin		1	1	5		7
Golden-crowned Kinglet		2				2
Cedar Waxwing		1				1
Loggerhead Shrike			6			6
Red-eyed Vireo	1					1
Myrtle Warbler		3				3
Red-wing		109	2			111
Orchard Oriole				4		4
Common Grackle		7	9	28	22	66
Brown-headed Cowbird		3	1	1		5
Cardinal			1	3		4
Pine Siskin		1				1
American Goldfinch				1	1	2
Oregon Junco				1		1
Tree Sparrow		1	1	5		7
Harris Sparrow		16	25	22	3	66
White-crowned Sparrow		2	10	16		28
Totals	2	329	228	268	106	933

amount of field time and thus the amount of data available for non-netted species. However, this time commitment also reduces the amount of observation time in other parts of the county.

Specimens.—A good collection of properly prepared and correctly labelled scientific study skins is invaluable to any distributional study. A scientific specimen documents a bird's presence at a particular place and time and is available for future study and

verification. Such specimens frequently supply data on age, sex and general health, all of which are important in studying bird distribution. Important collections of Ellis County birds are at Fort Hays Kansas State College, the University of Kansas and the Museum of Comparative Zoology. Additional specimens are scattered throughout other museums and some of these are cited in the appropriate Species Accounts.

Two important collections were made during the late 19th century. J. A. Allen collected 154 specimens of 31 species and took a number of sets of eggs during the summer of 1871 (Allen, 1872). Most of his collection (except for discards and exchanges through-

TABLE 6. Basic statistics concerning operation of Hays netting station, 1966-1970.

Year	Days Operation	Numbers Banded	Species Banded
1966	60	1,098	48
1967	147	4,271	108
1968	199	5,278	100
1969	210	3,994	97
1970	200	4,206	106

TABLE 7. Ten most commonly banded species at Hays, 1966-1970.

Species	Number banded
1. Tree Sparrow	2,138
2. Barn Swallow	1,926
3. Chipping Sparrow	1,437
4. Clay-colored Sparrow	1,366
5. House Sparrow	968
6. Orange-crowned Warbler	954
7. American Goldfinch	783
8. Harris Sparrow	532
9. Lincoln Sparrow	518
10. White-crowned Sparrow	471
Totals	11,093

out the years) is still at the Museum of Comparative Zoology. Dr. Louis Watson collected at least 160 specimens of 32 species during the period 1875-1885. Some of these were received by F. H. Snow at the University of Kansas and remained there. A larger number became part of the Amos Butler Collection and were received by Purdue University. Recently, all but two of the Purdue specimens were sent to the University of Kansas (Dr.

TABLE 8. Birds banded in Ellis County, 1966-1970.

Species	1966	1967	1968	1969	1970	Totals
Pied-billed Grebe.....	1					1
Green Heron.....		1			3	4
Sharp-shinned Hawk.....	1	1	2	2	4	10
Red-tailed Hawk.....		1	2			3
Swainson's Hawk.....			2			2
Marsh Hawk.....			2			2
Sparrow Hawk.....		2		2		4
Sora.....	1					1
Killdeer.....					1	1
Spotted Sandpiper.....		8	13	21	9	51
Solitary Sandpiper.....		6			1	7
Least Sandpiper.....		6				6
Semipalmated Sandpiper.....			1			1
Mourning Dove.....		66	55	17	12	150
Yellow-billed Cuckoo.....		2	3	7	8	20
Barn Owl.....					14	14
Screech Owl.....	1	1	3		3	8
Great Horned Owl.....				3		3
Long-eared Owl.....		1	4			5
Saw-whet Owl.....		1				1
Common Nighthawk.....			1		3	4
Chimney Swift.....		5	24	2		31
Belted Kingfisher.....		3	3	2	10	18
Yellow-shafted Flicker.....		6	3	7	23	39
Red-shafted Flicker.....			2	5	5	12
Hybrid Flicker.....		1	4	3	3	11
Red-bellied Woodpecker.....					1	1
Red-headed Woodpecker.....		1	1		2	4
Yellow-bellied Sapsucker.....				1		1
Hairy Woodpecker.....	1	4	5	5	13	28
Downy Woodpecker.....	4	9	9	16	35	73
Eastern Kingbird.....		1	4	10	5	20
Western Kingbird.....		1	2	3	7	13
Great Crested Flycatcher.....		2	4	7	8	21
Eastern Phoebe.....		2	1	2	1	6
Say's Phoebe.....			7	4		11
Traill's Flycatcher.....		3	27	75	22	127
Least Flycatcher.....		35	55	46	36	172
Olive-sided Flycatcher.....		1				1
Tree Swallow.....		13				13
Bank Swallow.....		1				1
Rough-winged Swallow.....		108	84	10	1	203
Barn Swallow.....		62	1,013	621	230	1,926
Cliff Swallow.....			16	2		18
Blue Jay.....	3	8	82	58	66	217
Black-billed Magpie.....				6	1	7
Black-capped Chickadee.....	7	11	25	14	76	133
White-breasted Nuthatch.....					2	2
Red-breasted Nuthatch.....	1			4	2	7
Brown Creeper.....	1	3	1	5	15	25
House Wren.....	11	76	101	92	73	353
Winter Wren.....				1	1	2
Long-billed Marsh Wren.....		2				2
Rock Wren.....		1				1
Mockingbird.....		3	4	1	2	10
Catbird.....	5	9	21	58	66	159
Brown Thrasher.....	5	24	49	81	65	224

TABLE 8.—Continued

Species	1966	1967	1968	1969	1970	Totals
Robin	11	103	37	156	39	346
Hermit Thrush				1		1
Swainson's Thrush	1	76	111	142	117	447
Gray-cheeked Thrush		3	19	10		32
Veery		1	3	8	3	15
Eastern Bluebird					8	8
Townsend Solitaire		1		2		3
Golden-crowned Kinglet	4	2	9	39	8	62
Ruby-crowned Kinglet	6	7	19	41	23	96
Cedar Waxwing	1	4	17	14	4	40
Loggerhead Shrike		1	1	2	2	6
Starling	1	3	7	5	18	34
Bell's Vireo		10	15	18	26	69
Solitary Vireo			1	1	19	21
Red-eyed Vireo		5	14	16	23	58
Warbling Vireo		4	2	17	22	45
Black-and-white Warbler		3			4	7
Tennessee Warbler		66	1	4	3	74
Orange-crowned Warbler	91	285	166	211	201	954
Nashville Warbler	24	13	5	51	167	260
Yellow Warbler	3	71	52	117	72	315
Magnolia Warbler		1	1		1	3
Myrtle Warbler	4	110	14	11	17	156
Audubon's Warbler			1		1	2
Black-throated Green Warbler	1				1	2
Chestnut-sided Warbler					1	1
Blackpoll Warbler		40	4	4	1	49
Ovenbird		1	8	7	6	22
Northern Waterthrush		1	6	6	4	17
Mourning Warbler			1	1	14	16
MacGillivray's Warbler		3	4	1	2	10
Yellowthroat	12	79	90	88	48	317
Yellow-breasted Chat	1	1	5	9	9	25
Wilson's Warbler	8	21	34	53	216	332
Canada Warbler					1	1
American Redstart		4	6	24	14	48
House Sparrow	91	413	362	55	47	968
Western Meadowlark			1		18	19
Yellow-headed Blackbird		1				1
Red-winged Blackbird		36	61	19	52	168
Orchard Oriole		2	15	38	37	92
Baltimore Oriole		11	20	31	53	115
Hybrid Oriole			1		2	3
Common Grackle		2	9	16	28	55
Brown-headed Cowbird		3	8	6	12	29
Cardinal	1	6	4	7	6	24
Rose-breasted Grosbeak		1	1	3	6	11
Black-headed Grosbeak		2	3	7	5	17
Blue Grosbeak		7	11	3	11	32
Indigo Bunting	1	2	2	5	3	13
Lazuli Bunting			2	2	1	5
Dickeissel		5	1	15	17	38
Purple Finch		1	3	13	8	25
House Finch	5	7		32	13	57
Common Redpoll					3	3
Pine Siskin		17	6	124	35	182
American Goldfinch	50	265	142	173	153	783

TABLE 8.—*Concluded*

Species	1966	1967	1968	1969	1979	Totals
Rufous-sided Towhee	12	28	24	17	21	102
Savannah Sparrow	1	25	1	1	1	29
Grasshopper Sparrow		5	2	1	1	9
Vesper Sparrow	3	33	6	1	3	46
Lark Sparrow		15	24	4	40	83
Slate-colored Junco	21	44	74	106	108	353
Oregon Junco	54	87	94	47	127	409
Tree Sparrow	235	664	418	341	480	2,138
Chipping Sparrow	16	196	659	183	383	1,437
Clay-colored Sparrow	17	338	573	123	315	1,366
Brewer's Sparrow			1			1
Field Sparrow	23	49	62	20	28	182
Harris Sparrow	105	135	80	101	111	532
White-crowned Sparrow	67	141	157	52	54	471
White-throated Sparrow	11	11	10	6	6	44
Fox Sparrow	1	1		1	1	4
Lincoln Sparrow	76	184	110	101	47	518
Swamp Sparrow		5			1	6
Song Sparrow	98	119	43	88	45	393
Totals	1,098	4,271	5,278	3,994	4,206	18,847

Russell Mumford, personal communication). At least 20 Watson specimens (longspurs and horned larks) were obtained by the Museum of Comparative Zoology through the Chadbourne, Frazar and Thayer collections. Whether these birds were received directly from Watson is uncertain.

The combined teaching and research collections at Fort Hays Kansas State College presently contain about 975 Ellis County skins representing 190 species. Most of these were selected to document seasonal or area distribution records or were taken in connection with local research projects. For example, the mist-netting and migration study requires specimens of known age, sex, race and plumage for comparative purposes. It is general practice to preserve salvage specimens (net casualties, road kills, etc.) whenever practical. Skeletal material is sent to the U. S. National Museum and several exchanges and loans were made with other institutions to increase our holdings for both research and teaching purposes.

Introduction to Species Accounts.—The following species accounts contain a summary of the information available for each of the 265 species known to have occurred in Ellis County. Ten additional species of hypothetical status are included in parentheses and the

reasons for such inclusion are indicated. Names of the 75 known breeding species are preceded by an asterisk.

TABLE 9. Returns and local recoveries of Ellis County birds, 1960-1970.

Status*	Species	Number Individuals†	Total Banded
(S)	Mourning Dove.....	5	679
(S)	Yellow-shafted Flicker.....	2	39
W	Red-shafted Flicker.....	1	12
PR	Hairy Woodpecker.....	1	30
PR	Downy Woodpecker.....	8	75
S	Eastern Kingbird.....	1	31
M	Rough-winged Swallow.....	6	203
S	Barn Swallow.....	64	1,939
S	Blue Jay.....	3	231
PR	Black-capped Chickadee.....	11	133
S	House Wren.....	2	354
S	Catbird.....	2	159
S	Brown Thrasher.....	2	248
(S)	Robin.....	3	353
(S)	European Starling.....	1	34
S	Bell's Vireo.....	10	69
PR	House Sparrow.....	102	968
S	Orchard Oriole.....	1	96
S	Baltimore Oriole.....	6	115
PR	Cardinal.....	2	28
S	Blue Grosbeak.....	1	32
M	Indigo Bunting.....	1	13
M	American Goldfinch.....	1	785
M	Oregon and Slate-colored Junco... .	31	763
W	Tree Sparrow.....	107	2,145
M	Field Sparrow.....	1	182
W	Harris Sparrow.....	68	598
M	White-crowned Sparrow.....	6	499
M	Song Sparrow.....	27	393
	Totals.....	481	11,206

* PR—Permanent resident at Hays, some species augmented by migrants.

S—Summer breeder, augmented by migrants.

(S)—Primarily a summer breeder but some individuals present at all seasons.

W—Wintering species, augmented by migrants.

M—Primarily a migrant species, but for some species, a few individuals may winter or breed nearby.

† A few individuals returned on multiple occasions but are included only once in the table.

Under each species account is a brief summary of data published or recorded prior to 1960. Whenever possible only the original or first report of an observation is cited. The standard Kansas references (Johnston, 1964, 1965) provide summary material for the entire state and provide interesting comparative material for the reader. Numerous observations published in *Audubon Field Notes* are not cited since the material is included under the appropriate species summary.

Next is a statement of status, seasonal period of occurrence, extreme dates, general habitat and pertinent related material. The dates used may be interpreted as follows: early month, 1st to 10th; mid-month, 11th to 20th; late month, 21st to end. Various other terms used are defined as follows:

transient—occurring briefly during migration.

resident—same individuals present for a period of months during winter, summer or both.

regular—recorded annually in proper habitat.

irregular—recorded occasionally, in most years.

casual—recorded infrequently but future appearance likely.

vagrant—out of range; not expected to occur again.

rare—a few individuals (in proper habitat) during most years.

uncommon—small numbers expected each year.

common—moderate numbers throughout proper habitat.

abundant—present in very high numbers.

low density—a few individuals, widely dispersed in proper habitat.

Data for three other categories are summarized, when appropriate, as follows:

Breeding Data: summary of all known local nesting data. Observers can make an important contribution by recording specific nesting data for most species.

Specimens: the number of known Ellis County specimens preserved in museums. Unless otherwise noted all are at Fort Hays Kansas State College. Specimens listed as (CAE) are specimens currently being used for special research projects. The locations of other specimens are indicated by the following initials:

ARP—Collection of Allan R. Phillips, Mexico City, Mexico.

MCZ—Museum of Comparative Zoology, Cambridge, Massachusetts.

NOF—Neotropical Ornithological Foundation, Tucson, Arizona.

PU—Purdue University, Lafayette, Indiana.

SWC—Southwestern College, Winfield, Kansas.

UK—University of Kansas, Lawrence, Kansas.

Banded: the total number banded in Ellis county from 1960 through 1970.

Returns or Recoveries: a summary of birds recaptured in the

banding area ninety days or more after banding (returns) or recaptured or reported dead outside the banding area (recoveries). Recovery data obtained before 1960 is included when available.

Species Accounts

Grebes: Podicipedidae

Grebes are duck-like, tail-less appearing water birds that dive rather than fly when approached. They may occur on any of the ponds or lakes in the area and occasionally one crash lands on a wet highway or street which it apparently mistakes for water.

Eared Grebe—*Podiceps caspicus*

Cooke (1888:53) Ellis (Watson).

Apparently a rare spring transient. No fall records to date. Birds have been seen on five occasions between 1 April and 24 May, in each case on local farm ponds. The largest group reported was eight on 27 April 1968 (RKS).

Specimens: 1. *Banded:* None.

Pied-billed Grebe—*Podilymbus podiceps*

Regular, low density transient from late March to late May and from late August to late October. Extreme dates: 20 March-25 May; 26 August-22 October; also a single near Munjor, 26, 28 June 1969. One was present at the Harold Kraus farm through late December 1970. It has been observed singly and in twos, never in flocks, on various local ponds and lakes. The remains of one was found at a Horned Owl roost on the FHKSC campus on 27 September 1960 (CAE). One was killed at the Hays TV Tower on 16 September and a second was captured alive in north Hays on 17 September 1966.

Specimens: 3 (1M, 2?). *Banded:* 1.

Pelicans: Pelecanidae

The White Pelican is a huge white bird with black wing tips and short legs and flies with the head hunched back on the shoulders. They are usually seen flying over the county but a few stragglers stop at the larger lakes and rivers.

White Pelican—*Pelecanus erythrorhynchus*

Imler (1936:297) "occasional" on Smoky Hill River. Wooster, *et al.* (notes) recorded between 3-15 April.

Irregular transient through the area. Four recent records: flock of 50 near Emmeram on 4 April 1969 (LSO); flock of 15-20 over College Farm on 15 May 1968 (CAE); flock of 15 southwest of Hays

on 28 September 1969 (REH); injured bird at Catherine on 17 October 1963.

Specimens: 1. *Banded:* None.

Cormorants: Phalacrocoracidae

Cormorants are large black water birds with long necks and fairly long tails. They swim low in the water, perch in an upright position and resemble dark geese when in flight.

Double-crested Cormorant—*Phalacrocorax auritus*

Irregular spring transient between 4 April and 9 May. The only fall record is one on Big Creek at Ellis on 4 October 1970 (RW). Most sightings have been in the downed trees of Rohr-Jacobs Lake where 11 were seen on 4 April 1967.

Hérons: Ardeidae

Hérons are long-legged, long-necked wading birds found in various wet areas but chiefly along streams and in ponds. In flight the neck is drawn back to the shoulders and the legs trail behind. Hérons are most frequently seen during early morning and late evening.

*** Great Blue Héron—*Ardea herodias***

Cooke (1888:82)—first at Ellis in 1884—20 April (Watson).
Andrews and Stephens (1961:3,6,8) "breeding colony" in Ellis County. Wooster, *et al.* (notes) nesting colony, 23 April 1956.

Common, but low density transient most frequently recorded during April and May; breeds locally; occasionally a few birds winter—3 February 1968. Extreme dates: 29 March-17 October. Occurs countywide in various wet areas. This is the large héron usually seen singly at exposed farm ponds and along streams. Observed frequently, usually singly, flying over farmland en route to feeding or roosting areas on the two rivers. Groups are rarely seen except at breeding colonies.

Breeding Data: Andrews and Stephens (1961) and Wooster (notes) reported small colonies of up to 11 nests on the Saline River during the period 1954-1961. Whether more than one group of birds was involved is not clear but nesting was apparently not very successful. A colony 2 miles east, 7 miles north of Emmeram had 12-15 nests in April 1969 and at least 15 nests on 5 June 1970 (CAE). In July, 12-15 of the 24 nests observed held large, nearly fledged young (RKS).

* **Green Heron**—*Butorides virescens*

Allen (1872:142) "occasional" (summer 1871). Wooster, *et al.* (notes) recorded from 11 May to 10 October. Wooster (1953: 18) 11 May 1953, Big Creek, FHKSC.

Regular, low density transient and summer resident from mid-April to mid-October. Extreme dates: 17 April-17 October. Most commonly seen from early May through July. Green Herons usually occur along wooded streams or tree-bordered ponds. They usually occur singly but a group of five was reported on 9 May 1968. They nest singly or in very small, loose colonies in tree groves in wet areas. Birds are regularly seen along Big Creek near Hays.

Breeding Data: One or two nests were present in a swampy grove of boxelders on the Harold Kraus farm 1967-70. Eggs were present by early May; young were nearly fledged by early July.

Specimens: 1 M. *Banded:* 4.

Recoveries: An immature banded on Big Creek 30 August 1970 was captured alive on a farm 4 miles west La Crosse (25 miles south Hays) on 14 September 1970. It was released at Cheyenne Bottoms.

Little Blue Heron—*Florida caerulea*

Probably a rare visitor. Birds were reported on three occasions: two east of Hays on 29 April 1961 (WHQ); one on Big Creek near the FHKSC campus on 1 May 1965 (GEP); an immature on the Smoky Hill River near Schoenchen on 3 June 1970 (CAE).

Common Egret—*Casmerodius albus*

Probably a rare visitor. The only record is one seen on Big Creek near the FHKSC campus on 5 May 1967 (CAE).

Snowy Egret—*Leucophoyx thula*

Wooster (1953:18), 11 May 1953.

Probably a rare visitor. The only recent record is one seen on the Saline River north of Ellis on 5 June 1970 (CAE).

Black-crowned Night Heron—*Nycticorax nycticorax*

Allen (1872:142) "a single specimen" along Big Creek (summer 1871). Wooster, *et al.* (notes) recorded between 11 April and 6 October and apparently bred.

Uncommon transient from late April to late May. No recent fall records. Extreme dates: 20 April-20 May. Night herons are usually seen along streams or ponds at dusk or in early morning. On occasion birds are reported roosting in shade trees in Hays and birds

are often heard at dusk in the vicinity of Big Creek. Nesting has not yet been documented.

Yellow-crowned Night Heron—*Nyctanassa violacea*

Apparently a rare visitor. Its status is not well established as immatures closely resemble those of the preceding species and some sight records may refer to either. Three recent records have been confirmed: a first year bird (observed at length at close range) on Big Creek near FHKSC 12 April 1969 (CAE); one southwest of Hays on 20 May 1968 (RKS); one on the Smoky Hill River in northeast Ellis County on 22 June 1969 (LWA).

American Bittern—*Botaurus lentiginosus*

Apparently an irregular visitor. Bitterns normally occur in vegetation in wet areas and should be looked for during wet years in the few marshy areas occurring in Ellis County (*e. g.*, Duck Creek Marsh). Only one of the four recent sightings was in "bittern habitat"—one in a small marshy spot near Hyacinth on 17 April 1963 (CAE). The other sightings were: one 5 miles north of Ellis on 30 June 1962 (MHS); one in a plowed field 2 miles west and 2 miles south of Antonino on 2 May 1968 (CAE, LWA); one at a pond in College Pasture on 15 May 1970 (CAE).

Wood Ibis: Ciconiidae

Wood Ibis—*Mycteria americana*

Vagrant. No recent records. Watson (Goss, 1885b:311) reported wounding one on Big Creek near Ellis on 26 March 1885. It had been present for several days previous to that date.

Ducks, geese and swans: Anatidae

Swans, large long-necked birds with white wing tips, have not been reported from Ellis County. Geese are abundant in migration and flocks occasionally stop at the larger ponds or in grain fields. Although positive data are few most flocks are apparently Canada Geese. Flocks of geese and Sandhill Cranes are frequently confused by untrained observers. Geese have long necks and short legs; cranes have long necks *and* long legs (sometimes difficult to see) and their calls differ.

Ducks occur on most bodies of water, especially during the spring migration. Puddle ducks predominate on the small shallow ponds, whereas most diving ducks are found on the larger ponds. Mergansers normally occur only on the largest ponds and at Rohr-Jacobs Lake. A large variety of ducks can be seen by visiting a series of different farm ponds during late March or early April. Up to 12 species have been seen on a single pond during a single day.

More observations are needed for the fall migration. At this season less

water is available and hunting pressure on most accessible ponds prevents regular observation. A few ducks winter if any open water is available and in recent years thousands of Mallards wintering on Cedar Bluff Reservoir, Trego County, utilize uncut harvested grain fields in southwest Ellis County for feeding.

Canada Goose—*Branta canadensis*

Cooke (1888:78) "Hutchinson's Goose," "sometimes common at Ellis" (Watson). Wooster, *et al.* (notes) recorded from 6 (?) to 29 March.

Regular, uncommon transient from early February to early April and during October and November. Extreme dates: 2 February-3 April; 9 October-14 November. Geese are most frequently seen in overhead flight but in most seasons a few flocks stop off at the larger ponds and lakes. In spring flocks also stop at flooded wheat fields.

White-fronted Goose—*Anser albifrons*

Probably a rare transient. The only record is of a bird banded near Smiley, Saskatchewan on 27 September 1963 and found dead in a field 1 mile west of Walker on 22 May 1967. (Baysinger, pers. comm.)

Snow Goose—*Chen caerulescens*

Probably a rare transient. Birds have been reported twice: one was seen over Rohr-Jacobs Lake on 16 April 1963 (Ed Almquist) and a flock of seven blues and two whites was seen on the College Farm on 12 October 1969 (GWT).

*** Mallard—*Anas platyrhynchos***

Common spring and fall transient especially during March and October; a few birds have nested in recent years; a few winter (December-February) if open water is available. Extreme dates: 6 January-23 November. Most May and June records are probably breeding birds. Nesting (in weedy draws) documented in 1961, 1962 and 1970; probably a few birds nest each year. They occur on ponds and streams throughout the area; during late winter large flocks from Cedar Bluff Reservoir sometimes feed on unharvested grain in southwest Ellis County. An estimated 18,000 were recorded northeast of Rohr-Jacobs Lake on 6 January 1970. These flocks frequently follow the Smoky Hill River en route to and from the feeding grounds and provide spectacular viewing in early morning and late evening during January and February.

Breeding Data: A nest with 8 eggs was found at Moore's Ponds on 7 May 1961 (MHS); females with broods were seen 20 May 1962 (newly hatched) and 10 July 1970. Nests (actual data lacking) were also reported from the College Farm and the Relict Area.

Specimens: 2 (1 M, 1 F). *Banded:* None.

Recoveries: Six birds banded elsewhere have been taken in Ellis County as follows:

<i>Banded</i>	<i>Recovered</i>
24 Nov., 1922—Browning Co., Ill.*	31 Oct., 1923—Ellis
28 Jan., 1965—Keith Co., Nebr.	28 Oct., 1967—12 mi. SE Ellis
11 Feb., 1967—Custer Co., Okla.	23 Dec., 1967—Hays
29 Jan., 1963—Umbarger, Texas	23 Dec., 1967—8 W, 12 S Hays
11 Jan., 1967—Dawson Co., Nebr.	10 Oct., 1967—17 mi. NE Hays
15 Feb., 1966—Larimer Co., Colo.	— Dec., 1968—8½ mi. SE Hays

* Lincoln (1927).

Black Duck—*Anas rubripes*

Probably a rare visitor. The only record is of three birds present in a huge flock of Mallards feeding in grain fields near Rohr-Jacobs Lake on 6 January 1970 (CAE, MER).

Gadwall—*Anas strepera*

Cooke (1888:65) first spring record at Ellis, 1884—14 March (Watson).

Uncommon but regular spring transient from early March to early May; rare fall transient from early September to mid-November. Extreme dates: 1 March-17 May (also 19 June); 6 September-22 November. Most common from mid-March through April. Two winter records: 6 December 1968 and 31 December 1969. Gadwalls occur, usually in small groups, on ponds throughout the county.

Pintail—*Anas acuta*

Cooke (1888:68) first spring record at Ellis in 1884—8 and 9 March (Watson).

Common spring transient from mid-February to late May; uncommon fall transient from mid-September to early October with stragglers to mid-November or later. Most common from early March to early April. Extreme dates: 8 February-25 May; 18 September-16 November; also one on 28 December. Nesting has not yet been documented but there are two recent summer records: one female on farm pond southwest of Hays on 19 July 1961 (CAE); two females near Antonino on 20 June 1970 (CAE). Pintails occur in a wide variety of wetland habitats from irrigation

ditches to large lakes. They usually occur in small flocks but flocks of "thousands" have been seen along the Smoky Hill River in early March.

Green-winged Teal—*Anas carolinensis*

Common transient from late February to late May and from mid-August through early November with stragglers to early December (if water is open). Peak migration periods are April and October. Extreme dates: 28 February-20 May; 16 August-8 December. Green-wings occur on ponds and streams and in wet areas throughout the county. They usually occur in small to medium-sized flocks but about 100 were present on Rohr-Jacobs Lake on 4 April 1967.

Specimens: 3 M. *Banded:* None.

*** Blue-winged Teal—*Anas discors***

Allen (1872:142) "more or less" frequent throughout the summer (1871).

Common spring and fall transient from late March or early April to late May and from mid-August to early October. Migration peaks are in late April or early May and in September. Extreme dates: 13 March-10 June; 2 August-15 October. Some late May and June sightings are probably breeding birds; but there is only one documented nesting: female with young, 24 August 1967 (LWA). Blue-wings occur in small to medium-sized flocks usually in small, shallow, vegetation bordered ponds. They also occur on streams and larger ponds.

Recoveries: Two birds banded elsewhere have been recovered in Ellis County as follows:

<i>Banded</i>	<i>Recovered</i>
4 Mar., 1922—Avery Id., Louisiana *	1 Sept., 1922—Victoria
23 Aug., 1968—Barton Co., Kansas	13 Sept., 1969—NW of Hays

* Lincoln (1924).

Cinnamon Teal—*Anas cyanoptera*

Probably a rare visitor. Single males were reported on two occasions: 23 April 1965 (GEP) and 27 March 1962, Rohr-Jacobs Lake (CAE).

Shoveler—*Spatula clypeata*

Wooster, *et al.* (notes) 6 May 1950 (12 pairs at Rohr-Jacobs Lake).

Common spring transient from early March to late June; un-

common fall transient from early September to mid-October with stragglers to late November. Extreme dates: 1 March-5 June; 5 September-30 November. The spring migration peak is usually late April-early May. A few birds may nest locally (brood, 10 June 1968, possibly this species) but this has not yet been confirmed. Shovelers occur in small to medium-sized flocks on ponds and streams and in wetlands throughout the county.

Specimens: 1 M. *Banded*: None.

Recoveries: One, a male found shot 2 miles west, 2½ miles south of Antonino on 17 April 1968 had been banded in Day County, South Dakota on 18 July 1965.

Baldpate—*Mareca americana*

Uncommon spring transient from late February to late May; less common in fall from mid-September to early November. Extreme dates: 28 February-24 May; 17 September-1 November. The spring migration peak is usually mid-March to mid-April. Baldpates occur on ponds and in wetlands throughout the county, but are usually more common on the larger ponds.

Specimens: 1 F. *Banded*: None.

*** Wood Duck—*Aix sponsa***

Allen (1872:142) "not common," summer 1871.

Apparently an occasional summer resident. Scattered recent records include breeding during 1969 and 1970. Wood Ducks were observed on Big Creek near Hays 6 May-20 June 1969. Chicks were reported by several people and one was obtained on 4 June. Birds were observed in the same area 13 May-1 June 1970 and a female with four or five young was seen on the FHKSC campus on the latter date. There are also three fall records: 13 September 1970 (near Yocemento); 20 October 1969 (Big Creek near Hays); 25 October 1969 (near Ellis).

Breeding Data: Chicks fledged about 1 June during both 1969 and 1970.

Specimens: 1 chick. *Banded*: None.

Redhead—*Aythya americana*

Uncommon spring transient from early March to early May; less common in fall from early October to late November. A few winter if water remains open. Extreme dates: 1 March-10 May; 9 October-30 November. The main spring migration is during March and early April. Eight birds were seen on Rohr-Jacobs Lake 31 De-

ember 1966 (TRM). An injured male spent summer 1970 at the Harold Kraus farm and was joined by a female in fall (still present on 16 December). Redheads usually occur on the larger, deeper and more open ponds throughout the county.

Ring-necked Duck—*Aythya collaris*

Uncommon spring transient from early or mid-March to early April. Fall status is uncertain, with one observation in "November" 1967. Extreme dates: 1 March-6 April. They occur in small flocks on ponds throughout the county.

Specimens: 1 (♂). *Banded:* None.

Canvasback—*Aythya valisineria*

Wooster, *et al.* (notes) recorded during early May.

Usually a rare but regular spring transient from late February to mid-April; more common than usual during spring of 1970. Extreme dates: 24 February-21 April. Fall status uncertain, with only one record: 8 August. Canvasbacks occur in small flocks on the larger, deeper, more open ponds throughout the county.

Lesser Scaup—*Aythya affinis*

Wooster, *et al.* (notes) 26 March 1952.

Uncommon spring transient from early March to late May. Extreme dates: 2 March-24 May. Fall status uncertain with no records to date. Scaup occur in small flocks on ponds and lakes throughout the county.

Common Goldeneye—*Bucephala clangula*

Apparently a rare visitor. The only record is of two females on a farm pond 2½ miles west Antonino on 30 March 1962 (CAE).

Bufflehead—*Bucephala albeola*

Uncommon spring and fall transient from mid-March to mid-April and from early November to early December. Extreme dates: 15 March-21 April; 3 November-8 December. They occur in small groups on ponds throughout the county.

Specimens: 2 (1 M, 1 F). *Banded:* None.

*** Ruddy Duck—*Oxyura jamaicensis***

Cooke (1888:74) "a variably common transient visitor; once a pair nested here" (Watson).

Uncommon spring and fall transient from late March to early June and from early September to mid-October. Extreme dates: 23

March-10 June; 27 September-18 October. They occur in small flocks on ponds throughout the county.

Hooded Merganser—*Lophodytes cucullatus*

Goss (1885a:112-113) 27 June 1884, female on Big Creek near Ellis.

Probably a rare visitor. The two recent records are of two females seen on Rohr-Jacobs Lake 12 and 14 March 1969 (CAE).

Common Merganser—*Mergus merganser*

Rare spring transient from early February to late March. Extreme dates: 8 February-29 March. There are no fall records to date. They occur on the larger ponds in the area; flocks of up to 75 birds have been seen on a large pond near the Walker Air Force Base. An unidentified female on Rohr-Jacobs Lake, 3 April 1969, was probably this species.

(Red-breasted Merganser—*Mergus serrator*)

The only record actually pertains to *M. merganser* from Cedar Bluff Reservoir, Trego Co.

Vultures: Cathartidae

The Turkey Vulture is a large, dark, broad-winged soaring bird with an apparent small head (unfeathered). The flight profile is distinctive with the wings forming a broad V and frequently tilting from side to side.

*** Turkey Vulture—*Cathartes aura***

Allen (1872:140) "Moderately common." Usually seen in small parties of three or four to a dozen. . . . Apparently breeding in cliffs near the Saline, but no nest found (summer 1871). Cooke (1888:110) at Ellis during the warm intervals in the winter of 1883-84 (Watson). Wooster, *et al.* (notes) reported 24 March-5 May.

Uncommon transient and summer resident from mid-March through early October. Probably nests regularly (nest found, 1968). Extreme dates: 11 March-2 October. One recent winter record: 22 January 1967. Most numerous in northwest part of the county along Saline River (in 1968, 95 percent of all birds censused were in this area) and in southwest near Smoky Hill River. Single birds soaring overhead may be seen anywhere in the county.

Breeding Data: The only confirmed breeding record is a nest with eggs found in a root cellar on an abandoned farmstead in south central Ellis County on 30 May 1968 by Don Cloutman, James Gates and Don Bonneau.

Black Vulture—*Coragyps atratus*

Vagrant. No recent records. Watson (Goss, 1885b:311) took one at Ellis on 27 March 1885.

Kites, hawks and eagles: Accipitridae

The local diurnal birds-of-prey fall into five categories. The Mississippi Kite is a very graceful, plain gray or striped (immature) hawk usually seen soaring over tree groves. Kites commonly capture and eat large insects on the wing. The two short-winged, long-tailed accipiters are secretive and occur singly in thick tree growth of windbreaks and stream banks. Most numerous are the buteos which soar on broad, rounded wings and fanned tails and perch conspicuously on trees and utility poles. Most species are fairly tame and the Swainson's Hawk commonly nests in farmyards. Eagles are very large wintering raptors readily identified by very large size and very flat flight profile. Golden Eagles occur countywide; Bald Eagles are more regular along the Smoky Hill River. The Marsh Hawk, easily identified by long narrow wings, long tail and white rump, hunts by couring a few feet above ground over prairie and cultivated land.

*** Mississippi Kite—*Ictinia mississippiensis***

Uncommon transient and rare summer resident from, usually, mid-May through mid-September. Also recorded 15 April 1965 (GEP). Extreme dates: 15 May-20 September. A few birds probably nest in Hays occasionally. During migration birds are seen along Big Creek and in other wooded areas. In recent years one or two pairs were seen at frequent intervals during the summer. Birds perch on TV antennas and "kite" over the town.

Breeding Data: No nests were found but at least one pair was present in Hays each summer from 1967 through 1970. Young birds were seen on 1 August 1967 by Marvin Rolfs.

Sharp-shinned Hawk—*Accipiter striatus*

Uncommon spring and fall transient and rare winter resident from early September through late April. Extreme dates: 3 September-28 April. Most frequently recorded in April and October. Single birds are usually seen along Big Creek and in windbreaks and other wooded vegetation. Occasionally one is seen in Hays. On several occasions a bird has hunted the netting area for up to two weeks actually removing birds from the nets.

Specimens: 3 (2 M, 1 F). *Banded:* 10.

Cooper's Hawk—*Accipiter cooperi*

Wooster, *et al.* (notes) recorded during May and December

Rare spring and fall transient and winter resident from late Sep-

tember through mid-April. Extreme dates: 20 September-16 April. This species is much less common than the Sharp-shinned Hawk and only a few birds are reported each year. Most observations have been at the Fort Hays Experiment Station and the College Farm.

° **Red-tailed Hawk**—*Buteo jamicensis*

Allen (1872:140) "a few pairs seen, and nest with three fresh eggs," 1 June 1871. Snow (1878:38) specimen from Ellis.

Present all year. Common transient and summer resident; uncommon winter resident. Censusing in 1968 showed that red-tails were most common in the northern third of the county. Most birds nest along the wooded streams but at other seasons birds may be expected in or over any habitat. In winter, local birds are replaced, at least in part, by migrants from outside the area. In winter, birds perch conspicuously on roadside utility poles and many are killed by local shooters.

Breeding Data: A few nests are found each year. Adults are on territory and beginning nest building by mid-March (one was carrying sticks on 28 February, MER). Nestlings have been observed by late April (25th) and young are nearly fledged by mid-June (13th).

Specimens: 1 M. *Banded:* 4.

Broad-winged Hawk—*Buteo platypterus*

Cooke (1888:116) reported from Ellis by Watson.

Rare spring transient usually from late April through late May. No confirmed fall records to date. Extreme dates: 7 April-25 May. A melanistic bird was seen on 11 May 1968 (CAE). All sightings have been from heavily wooded areas and the birds are very quiet and secretive. In most years single birds were noted in late April either along Big Creek or on the FHKSC campus. Occasional birds have been reported in residential Hays.

° **Swainson's Hawk**—*Buteo swainsoni*

Snow (1876:135) breeding at Ellis; Wooster, *et al.* (notes) 14 April-17 May 1941 (including flock of 100 over Hays park on 16 April).

Common transient and summer resident from mid-March to late September or early October. Extreme dates: 17 March-2 October. Most common during April and late August-early September. Birds occur throughout the county and may occur in or over all habitats. Nesting birds, however, occur primarily in cultivated areas. Birds

frequently feed in fields being prepared for planting and during harvest. Swainson's nest in isolated groves and farmyards more often than do red-tails. On the Smoky Hill River both species nest in fairly close proximity. Large migrating flocks have not been reported in recent years.

Breeding Data: Nests are found each summer. Nest building occurs in mid- and late April; nestlings were reported in mid-June and were nearly fledged by late June.

Specimens: 3 (2 M, 1 F). *Banded:* 2.

Rough-legged Hawk—*Buteo lagopus*

Wooster, *et al.* (notes) recorded between 30 November and 17 April.

Common transient and winter resident from late September through early May. Extreme dates: 20 September-2 May. Also a report for 6 August 1961 (WHQ). In 1968, censusing showed a gradual build up in October and November with a peak number in mid-December. Highest concentrations were in the central part of the county. In spring, numbers gradually decrease during March and April. They occur in open country (both cultivated and range land) and birds commonly perch conspicuously on utility poles along roads.

Specimens: 3 (2 F, 1 M); also a mounted bird at UK (14 January 1904, C. W. Miller).

Banded: None.

*** Ferruginous Hawk—*Buteo regalis***

Cooke (1888:117) "tolerably common at Ellis every year" (Watson). Wooster, *et al.* (notes) recorded during April, July and "fall." Snow (1903:161) fall, 1874; breeding, May 1875. Snow (1876:135) taken at Ellis by Dr. Watson, from whom were received, in July, 1875, two young birds taken from the nest.

Uncommon transient and winter resident from early October to mid-April. Extreme dates: 2 October-18 April. Also one sighting, 24 September 1968. Ferruginous Hawks are usually seen in open country and most of the observations have been in the central and southwestern parts of the county.

Specimens: 1 M; 1 M (CAE); also 1 at UK (fall 1874, Watson).

Banded: None.

Golden Eagle—*Aquila chrysaetos*

Wooster, *et al.* (notes) recorded between 18 December and 10 May.

Uncommon transient and winter resident from late September to late April. Extreme dates: 26 September-22 April. Golden Eagles are most frequently recorded during the winter months. They are most frequently observed in the southwest quarter of the county but are recorded countywide. They usually feed in open country but may join Bald Eagles in roosts along the Smoky Hill River.

Specimens: 1 M. *Banded:* None.

Bald Eagle—*Haliaeetus leucocephalus*

Rare but regular transient and winter resident from late September to mid-March. Extreme dates: 27 September-20 March. Bald Eagles are most regular along the Smoky Hill River in the southwest part of the county and are less often seen away from the rivers than are Golden Eagles. During the 1950's a roost was established on the Saline River north of Hays. More recently a roost was established on the Smoky Hill River southwest of Hays.

Specimens: 1 F. *Banded:* None.

* Marsh Hawk—*Circus cyaneus*

Allen (1872:140) "rather common" (summer 1871). Wooster, *et al.* (notes) reported throughout the year; three fledglings banded in College Pasture 30 June 1932.

Common transient and winter resident from late August through mid-April. Extreme dates: 25 August-22 April. Formerly a summer resident; scattered sightings were made each summer 1968-70 and a few birds probably nested each year but only in 1968 was a nest actually found. The 1968 censusing showed scattered records in late summer, mostly in the western part of the county. Peak numbers were in September and birds were then most numerous in the central part of the county. By winter, birds were most common in the southern part of the county. Marsh Hawks are common in open country especially over cultivated fields and weedy draws but also over native grassland.

Breeding Data: The only recent nest found (College Pasture) held four stub-tailed young on 17 June; fledging occurred on 1 July.

Specimens: 1 M; also 2 at UK (15 January 1904, C. W. Miller).

Banded: 2.

Recoveries: A fledgling banded in the College Pasture on 1 July 1968 was recovered near Clovis, New Mexico on 8 September 1968.

Ospreys: Pandionidae

Ospreys should be looked for along the larger streams and ponds. They fly with a prominent crook at the wrist of their long wings and plunge into the water for fish.

Osprey—*Pandion haliaetus*

Probably a rare visitor. No confirmed recent records. Watson (Cooke, 1888:121) reported one at Ellis on 16 April 1884. Ospreys should occur at least occasionally on the larger lakes or along the rivers.

Falcons: Falconidae

All Kansas falcons have long pointed wings and relatively long tails. They are powerful, fast fliers but are more commonly seen perched on utility poles (Prairie Falcon) or utility lines (Sparrow Hawks). When perched they appear large headed and give an appearance of alertness.

Prairie Falcon—*Falco mexicanus*

Wooster, *et al.* (notes) recorded between 3 December and 8 April.

Uncommon transient and summer resident from early August to mid-April. Extreme dates: 8 August-17 April. Prairie Falcons are most often observed in open country in the southwestern part of the county. Birds are most often seen in winter on utility poles along roadsides.

° Duck Hawk—*Falco peregrinus*

Allen (1872:140) pair breeding (half-grown young) on high cliff near Saline River, 29 May 1871.

Formerly bred; now a very rare transient. Single birds were carefully identified on two occasions. One on Big Creek near Hays on 15 March 1963 was first seen in flight and later standing in the shallow water of Big Creek at a distance of 50 yards (MER). One stooped at a Killdeer near the John Kraus pond southwest of Hays on 17 May 1968 (CAE, TRB).

Pigeon Hawk—*Falco columbarius*

Probably a rare transient but present status uncertain and there are no recent records. Watson (Snow, 1903:161) collected 12 specimens at Ellis on nine different dates between 6 October and 9 November 1875 and sent them (fresh) to Snow. In 1884 Watson recorded the first arrival for Ellis on 15 April (Cooke, 1888:119).

Specimens: 8 at UK (Watson, Oct.-Nov. 1875).

* Sparrow Hawk—*Falco sparverius*

Allen (1872:140) "a few pairs observed nesting in hollow trees" (summer 1871). Cooke (1888:120) first arrival at Ellis, 1884—21 March (Watson). Wooster, *et al.* (notes) formerly nested on FHKSC campus, 1924-1929 (young banded each year); recorded 3 January-12 September.

Common transient and uncommon summer resident from early March through November. Small numbers winter, usually roosting in unoccupied buildings. They are most commonly observed during April, May and September. Transient and wintering birds occur throughout the county especially on wires along roadsides; nesting birds prefer wooded stream banks.

Breeding Data: A pair nested in a campus building from 1924-1929; nesting began in early March with fledging between mid-June and mid-July. More recently a pair was nesting along Big Creek in mid-April; fully fledged young have been seen in early July (Duck Creek Marsh).

Specimens: None. *Banded:* 4.

Grouse: Tetraonidae

The two grouse originally present in Ellis County inhabited virgin prairie and adjacent riparian border and both were eliminated by intensive agriculture and destruction of habitat.

Greater Prairie Chicken—*Tympanuchus cupido*

Former resident but no longer occurs in Ellis County. In the summer of 1871 Allen (1872:141) stated, "Rare. It is every year, however, advancing westward. Was first seen in the vicinity of Fort Hays about two years since, and is apparently fast becoming common." Numbers had declined by the turn of the century and a few birds were reported in 1921 (7 on 26 Dec.), 1924 (2 on 22 Dec.) and 1927 (1 seen by A. Riegel in College Pasture).

Specimens: 1 at UK (5 Jan. 1904, Hays, C. W. Miller).

Sharp-tailed Grouse—*Pedioecetes phasianellus*

Former resident but no longer occurs in Ellis County. During the summer of 1871 sharp-tails were "common along the streams." According to Watson (Cooke, 1888:106) "in the vicinity of Ellis, Kansas they disappeared in 1875 and since then the Prairie Hen has taken their place."

Quails and pheasants: Phasianidae

The Bobwhite inhabits brushy habitat, especially along streams and is ap-

parently more common now than during pioneer days. More abundant is the Ring-necked Pheasant (introduced) which occurs in all cultivated areas and is now the most important game bird in the area.

* **Bobwhite**—*Colinus virginianus*

Allen (1872:141) "occasional, but every year is becoming more common." Moving westward with settlers (summer 1871).
Wooster, *et al.* (notes) regular, nesting.

Common permanent resident. They occur primarily in brushy hedgerows and in undergrowth along streams, rivers and ponds. Most commonly recorded during spring when males are calling.

Breeding Data: Broods have been reported by mid-July and flying young by late July.

Specimens: 1 M. *Banded:* None.

* **Ring-necked Pheasant**—*Phasianus colchicus*

Wooster, *et al.* (notes) reported in 1941, 1950 and 1952.

Ten pairs were introduced into Ellis County by the Kansas Forestry, Fish and Game Commission in 1906 (Travis, 1907). Additional introductions in the twenties and thirties throughout western Kansas had varied success until the large scale introductions of the late thirties. By 1939 birds were well established in the western two-thirds of the state and a three-day season (two cocks and one hen limit) was opened in 21 northwestern counties including Ellis. The species is now common especially in cultivated areas. They are most conspicuous in spring when males are courting and feeding in open fields along roadsides.

Breeding Data: Nests with eggs have been reported from late May to late July; one clutch hatched on 30 May; chicks have been reported by late June.

Specimens: 3. *Banded:* None.

Turkeys: Meleagrididae

Once extirpated and since reintroduced, the turkey is apparently established on the Saline River as evidenced by a few recent sightings and numerous tracks.

Turkey—*Meleagris gallopavo*

Allen (1872:141) "common along the timbered portions of the streams" (summer 1871).

Turkeys were extirpated, probably in the late 19th century, and then recently were introduced by the Kansas Forestry, Fish and Game Commission on the Saline River north of Ellis. There are

three recent records: two seen 9 June 1969 (LWA); tracks observed in the same general area on 3 and 25 July 1970.

Cranes: Gruidae

Sandhill Cranes are common transients and observers should look for the rare Whooping Crane which migrates through central Kansas. Cranes migrate in large flocks, often in V formation; flying with necks and legs outstretched and often giving their distinctive call. When on the ground, usually in pastures, they are distinguished from Great Blue Herons by their uniform color pattern.

Whooping Crane—*Grus americana*

Probably a rare transient through the area. The only recent record is of three birds seen northeast of Ellis by O. Bonner and class on 19 October 1965.

Sandhill Crane—*Grus canadensis*

Wooster, *et al.* (notes) two flocks of 100-150 on 31 March and 1 April 1940.

Common spring and fall transient, most from mid-February to early April and from late September to early November. Extreme dates: 17 February-14 April; 20 September-13 November. They are usually recorded in large flocks overhead but a few birds occasionally stop in pastures and in open wetlands near streams.

Specimens: 1 M. *Banded:* None.

Rails and coots: Rallidae

Rails are small, secretive and difficult to observe. Although wet fields and marshes are few in Ellis County, rails are probably more numerous here than records indicate. All attractive habitat should be investigated during wet years. They prefer to run when approached and flight is short and weak. The Florida Gallinule may occur occasionally during wet years. Coots, easily identified by their chunky gray bodies and white bills, are regular on ponds during migration.

Virginia Rail—*Rallus limicola*

Probably a regular transient and possibly a summer resident when marshes are available. However, there are only three records to date: 30 September 1962, one at College Farm (MER); 24 July 1963, one near Hyacinth; one killed at the Hays TV tower on 3 May 1967.

Specimens: 1 F. *Banded:* None.

Sora—*Porzana carolina*

Imler (1936:301) "one captured," Ellis Co., 1927 (Wooster).

Probably a regular transient and possibly a summer resident when marshes are available. There are a few scattered spring records between 18 April and 17 May including one killed at the Hays TV tower on 12 May 1967. The only fall record is an immature netted on Big Creek on 24 September 1966 and recaptured two days later.

Specimens: 2 M. *Banded:* 1.

Coot—*Fulica americana*

Allen (1872:142) "single specimen," 8 June 1871. Said, however, to be common. Cooke (1888:89) first at Ellis for 1884—4 April (Watson). Wooster, *et al.* (notes) recorded between 4 April and 8 June.

Regular, but uncommon spring and fall transient from early March to early June and from mid-August to early November. Extreme dates: 9 March-1 June; 10 August-4 November. They occur in small groups on ponds throughout the county. Occasional birds are picked up dead from city streets and other residential areas, apparently the victims of utility lines.

Specimens: 1 F; also 1 at MCZ. *Banded:* None.

Plovers: Charadriidae

Plovers are small to medium-sized birds with relatively short bills and necks and large heads. The Killdeer is conspicuous throughout the area and a few winter; other species are rare transients. The Mountain Plover and Golden Plover should be looked for in irrigated grassland; other species are more likely on mud flats and along ponds.

Semipalmated Plover—*Charadrius semipalmatus*

Goss (1886:18) "small flock at Ellis" (Watson). Wooster, *et al.* (notes) 16 May 1941.

Possibly an irregular transient in wetlands. However, there is only one recent record (unconfirmed), one seen in northeast Ellis County during early August 1968.

According to Goss (*op. cit.*) Watson recorded a small flock at Ellis. This may be the record listed by Cooke (1888:94) for the Semipalmated Sandpiper, a more likely possibility.

*** Killdeer—*Charadrius vociferus***

Allen (1872:141) "common everywhere" (summer 1871). Cooke (1888:100) first for Ellis in 1884—11 March (Watson). Wooster, *et al.* (notes) reported 28 March-25 October; 2 young 22 May 1933.

Common transient and summer resident; winters in small numbers during some, probably most, winters. Most numerous from March through October. In 1968 migration peaks were in early April and mid-October. Largest spring flock was 75 on 10 April 1968; largest fall flock was 117 on 7 October 1968 (RKS). On census routes in 1968, they were most numerous in the northern two-thirds of the county. They occur in the vicinity of streams, ponds, and lakes, and also along roadsides and in farmyards. A few wintered during 1960-61, 62-63, 68-69, 69-70.

Breeding Data: Eggs were reported from mid-May to mid-June; small chicks were reported from late April to early July.

Specimens: 4 (3 F, 1 chick); also 3 at MCZ. *Banded:* 1.

Mountain Plover—*Eupoda montana*

Allen (1872:141) "moderately common" (summer 1871). Cooke (1888:101) "at Ellis it is a regular summer resident and is common" (Watson).

Former summer resident; present status uncertain; no recent records.

Specimens: 5 at MCZ. *Banded:* None.

Sandpipers: Scolopacidae

A variety of sandpipers occur in Ellis County most of them on mud flats along streams and ponds. A few (Long-billed Curlew and Upland Plover) prefer upland prairies and wheat fields. Others such as the Common Snipe favor marshy areas. Most species are dull in color, cryptically marked above and white below. Curlews are large with decurved bills; godwits have long upturned bills. The peeps are small, short-legged sandpipers with moderate length bills. They occur in small flocks and are difficult to identify.

The overall shorebird migration is extended and the first fall migrants return soon after the last of the spring transients have departed. Snipe winter in small numbers at springs near the Smoky Hill River. A recent paper by Schreiber (1970) summarizes the local information available for the shorebird families.

Common Snipe—*Capella gallinago*

Cooke (1888:91) winter of 1883-84, "a few" were seen at Ellis in December "after the creek was nearly frozen over. They were late migrants" (Watson).

Low density transient from early March to late May and from late September to late October or early November. Extreme dates: 2 March-3 June; 25 September-7 November. In 1968 the spring migration peak was in mid- and late April. Small numbers winter, usually near springs near the Smoky Hill River or wherever open water remains. Snipe wintered during most recent years.

Long-billed Curlew—*Numenius americanus*

Oberholser (1917:188-195) 12 June 1871, records species from Fort Hays.

Probably nested formerly; now a rare transient with recent records from early April (8th) to mid-May (13th). Two recent summer records: 28 June (1); 8 July (4). There are no recent fall records. In 1968 the migration peak was in early April. The largest flock reported was 13 on 8 April 1969 (RKS). Birds are most frequently seen in irrigated wheat fields and open grassland, less often in wetlands.

Specimens: 3 at MCZ. *Banded:* None.

Eskimo Curlew—*Numenius borealis*

Former transient; now extinct. The only record is the specimen taken by Allen (1872:141) on 15 June 1871 and reported by him as *N. phaeopus*.

Specimens: 1 at MCZ.

(Whimbrel—*Numenius phaeopus*)

The specimen reported by Allen (1872:141) was actually *N. borealis*.

Upland Plover—*Bartramia longicauda*

Allen (1872:141) "not common" (summer 1871). Cooke (1888:96) first for Ellis County in 1884—25 and 26 March (Watson). Wooster, *et al.* (notes) recorded between 25 March and "summer."

Uncommon transient and probably a rare summer resident from mid-April to mid-September. Extreme dates: 22 April-15 September. Present status uncertain; scattered records throughout the summer but nesting has not recently been documented. A broken wing display was observed by L. W. Anthony on 4 July 1970. There are relatively few spring records, most of these birds flying over at night; more common in fall with the 1968 peak from mid-July to August. Most numerous (fall migration) in central part of county. Upland Plover occur primarily in wheat fields but also in grasslands.

Specimens: 2 F; also 2 at MCZ. *Banded:* None.

* Spotted Sandpiper—*Actitis macularia*

Allen (1872:141) "a few pairs were observed near Fort Hays where they were breeding" (summer 1871). Wooster, *et al.* (notes) 18 May 1941.

Regular low density transient from late April to early June and

from early July to late August. Extreme dates: 23 April-5 June; 4 July-15 September. Four birds seen on the Smoky Hill River near Rohr-Jacobs Lake on 4 July 1968 acted like a family group and when flushed continued to return to the same area. The peak migration in 1968 was in mid- to late May and early to mid-August. They occur singly and in small groups along streams and ponds throughout the county.

Specimens: 2 (1 M, 1 F). *Banded:* 51.

Solitary Sandpiper—*Tringa solitaria*

Regular, low density transient from mid-April to mid-May and from early July to early October. Extreme dates: 15 April-20 May; 6 July-10 October. The major migration peaks in 1968 were late April-early May and early August-mid-September. They occur along ponds and streams throughout the county usually singly but occasionally in groups of two or three.

Specimens: 1 (?). *Banded:* 7.

Willet—*Catoptrophorus semipalmatus*

Probably a rare transient. There are a few spring records between 23 April and 8 May and one road kill on 25 August 1969. The maximum number seen to date was five on 29 April 1968 (RKS). They occur on ponds and one was seen over Big Creek, FHKSC.

Specimens: 1. *Banded:* None.

Greater Yellowlegs—*Totanus melanoleucus*

Regular, low density transient from late March to mid-May and from late July to mid-October. Extreme dates: 27 March-6 June; 25 July-22 October. The migration peaks in 1968 were mid- and late April and early to mid-August. The largest flock reported was 15 on 10 April 1968 (RKS). They occur along ponds and streams throughout the county.

Specimens: 1 M. *Banded:* None.

Lesser Yellowlegs—*Totanus flavipes*

Wooster, *et al.* (notes) 12 May 1941.

Regular, low density transient from early April to late May and from early July to late October. Extreme dates: 8 April-24 May; 8 July-22 October. The 1968 migration peaks were mid- and late April and early August. The largest flock reported was 12 on 10 April 1968 (RKS). They occur around ponds, streams and wetlands throughout the county.

Specimens: 3 (2 F, 1 ?). *Banded:* None.

Long-billed Dowitcher—*Limnodromus scolopaceus*

Wooster, *et al.* (notes) recorded 6 May 1950.

Probably a rare, low density transient from mid-April to mid-May and from late July to early September. Extreme dates: 13 April-15 May; 24 July-6 September. The 1968 migration peaks were in early May and early August. Dowitchers occur singly or in small flocks around ponds and streams throughout the county.

Dunlin—*Erolia alpina*

Casual visitor. The only record is a single bird seen on a small pond $3\frac{1}{4}$ miles west of Antonino on 18 and 19 April 1968 (CAE, RKS).

Pectoral Sandpiper—*Erolia melanotos*

Wooster, *et al.* (notes) 16 May 1941.

Regular, low density transient from early April to late May and from mid-July to early September. Extreme dates: 1 (?) April-25 May; 13 July-6 September. They are more common in spring than in fall. The 1968 migration peaks were in late May and August. They occur on ponds and in flooded fields throughout the county.

White-rumped Sandpiper—*Erolia fuscicollis*

Rare, low density transient from early or mid-May to early June. There are actual spring records on 1 May and from 20 May to 6 June but no fall records to date. They occur along farm ponds and streams and have been recorded from Big Creek more frequently than have the other peeps.

Baird Sandpiper—*Erolia bairdi*

Regular, uncommon spring transient from mid-April to mid-May; rare fall transient from late August to mid-September. Extreme dates: 10 April-17 May; 30 August-16 September. The 1968 migration peaks were mid- and late April and early September. They occur primarily along ponds throughout the county.

Least Sandpiper—*Erolia minutilla*

Regular, low density transient from mid-April to late May and from mid-July to mid-September. Extreme dates: 10 April-22 May; 12 July-15 September. The 1968 migration peaks were in late May and August. The largest flock recorded was 20 on 5 May 1967 (CAE). They occur around ponds and streams throughout the county and in May 1967 were regular on Big Creek.

Specimens: 1 M. *Banded:* 6.

Stilt Sandpiper—*Micropalama himantopus*

Wooster, *et al.* (notes) 16 May 1941.

Uncommon spring transient; rare fall transient. The scattered spring records are from 27 April to 1 June; the fall records are 20 and 29 August. Birds were reported from several ponds throughout the county.

Semipalmated Sandpiper—*Ereunetes pusillus*

Cooke (1888:94) first in 1884 in Ellis—5 April (Watson).

Regular, low density transient from late April to late May and from early August to early September; less common in fall than in spring. Extreme dates: 28 April-5 June; 1 August-2 September. The 1968 migration peaks were in mid-May and August. They occur along ponds and streams throughout the county.

Specimens: 2 M. *Banded:* 1.

Western Sandpiper—*Ereunetes mauri*

Status uncertain, probably often overlooked. Apparently a low density transient. In 1968 recorded from early April to late May and from early August to late September. Extreme dates: 10 April-6 June; 2 August-24 September. The 1968 migration peaks were in late May and August. They occur along ponds and streams throughout the county.

Hudsonian Godwit—*Limosa haemastica*

Probably a casual visitor. The only record is of two birds seen on small ponds about 3 miles west of Antonino on 19 April 1968 (RKS, CAE).

Avocets: *Recurvirostridae*

The unmistakable Avocet occasionally visits area ponds. Not yet reported is the Black-necked Stilt easily identified by black and white plumage, long red legs and long straight bill.

Avocet—*Recurvirostra americana*

Probably a rare transient. A single bird was seen 15 miles north and 7 miles east of Hays on 27 April 1962 (MHS). Avocets were also present 22 and 24 April and 25 and 26 May 1968 on ponds near Antonino (RKS, CAE). The only fall record is 16 August 1968. Avocets are usually recorded singly or in small numbers but a flock of 21 was present on 24 April 1968.

Phalaropes: *Phalaropodidae*

Phalaropes are chunky shorebirds with long necks and thin bills that spend most of their time swimming buoyantly. When feeding they swim in small

circles in shallow water to stir up food. Females are more brightly colored than males.

Wilson Phalarope—*Steganopus tricolor*

Regular, uncommon spring transient from mid-April to late May. Extreme dates: 16 April-20 May. The only fall record is 16 August. Phalaropes occur in small flocks on ponds and occasionally along streams throughout the county.

Specimens: 5 (1 M, 4 F). *Banded:* None.

Northern Phalarope—*Lobipes lobatus*

Apparently a rare transient. The only reports are scattered records during late May (25-28) and September (17, 26) 1968 (RKS, CAE). Flocks of up to 19 birds were reported on small ponds in the southern part of Ellis County on 26 May.

Gulls and terns: Laridae

Franklin's Gulls migrate over the county in large numbers. Black-headed in spring, gray-headed in fall, they follow farm machinery working fields at both seasons. Other gulls occasionally visit the larger ponds. The smaller, more dainty, fork-tailed terns visit wetlands in small numbers.

(Herring Gull—*Larus argentatus*)

The several records on Christmas counts either refer to *L. delawarensis* or were actually seen outside Ellis County.

Ring-billed Gull—*Larus delawarensis*

Eastman (1951:27) "flocks over College Pasture" undoubtedly refers to *L. pipixcan*. Several published records on Christmas counts are also erroneous or were seen outside Ellis County.

Uncommon visitor usually in spring. There are six spring records between 9 March and 13 April and one fall record on 22 October 1967. Ring-bills are usually seen at or over the larger ponds and lakes and are usually present for only brief periods.

Franklin's Gull—*Larus pipixcan*

Wooster, *et al.* (notes) recorded 25 April and 21 October.

Common transient usually from mid-April through late May and during October. Extreme dates: 14 April-12 June; 2 October-8 November. This is the gull commonly seen in Ellis County. Franklin's Gulls are usually seen in large loose flocks overhead during migration. Flocks frequently alight in cultivated fields and commonly follow plows and harrows as ground is being broken or prepared. They are very rarely seen on ponds and along streams.

Many early sightings are invalid because observers failed to distinguish between the gray-headed fall and winter Franklin's Gull and the Ring-billed Gull.

Specimens: 2 (1 M, 1 F). *Banded:* 1.

Forster's Tern—*Sterna forsteri*

Apparently an occasional visitor, chiefly at the larger lakes. Recorded on four occasions: several at Moore's Ponds on 24 April 1961 (GWT, MHS); one on pond north of Rohr-Jacobs Lake on 6 May 1968 (RKS); several in southwest Ellis County on 20 May 1968 (RKS); seven or eight over FHKSC campus on 11 October 1969 (REH).

Black Tern—*Chlidonias niger*

Uncommon transient, usually singly or in small flocks over area ponds. Extreme dates: 15 May-3 June; 2 August-24 September. In spring, birds are occasionally seen following farm equipment sometimes in company with Franklin's Gulls.

Doves: Columbidae

The slim, long-tailed "turtle dove" is common to abundant throughout the area but is uncommon in winter. Feral populations of Rock Doves or "pigeons" occur in several areas but are most numerous in the various towns.

*** Rock Dove—*Columba livia***

Wooster, *et al.* (notes) 26 May 1952.

Common permanent resident. Rock Doves are most common in towns and on farmsteads but smaller numbers nest under bridges, in river bluffs and other feral situations.

Breeding Data: A few birds are nesting throughout much of the year but most of the feral birds nest between March and early June.

*** Mourning Dove—*Zenaidura macroura***

Allen (1872:140-141) "common everywhere, but most numerous in the vicinity of timber." Many nests along Big Creek (summer 1871). Wooster, *et al.* (notes) regularly recorded.

Present all year. Common transient and summer resident from mid-March through September. The high numbers of late summer drop drastically after 1 September (opening of hunting season) and few remain after November. Small numbers winter in sheltered areas especially along the Smoky Hill River. They occur in all habitats, nesting primarily in windbreaks, timber claims, towns and along wooded streams.

Breeding Data: In 1962 Schroeder (1970) studied a dense dove population in an osage orange timber claim north of Hays. An estimated 92 pairs attempted 389 nests and fledged 410 nestlings (4.5 per pair). Nest building took place from 27 April to 30 August and incubation was between 2 May and 11 September. Peak nesting was from late May until late June. Earlier nesting (from 10 April) occurs commonly where cover is more dense, notably in urban conifers and along Big Creek.

Specimens: 1(M ?); also 2 at MCZ. *Banded:* 697.

Recoveries: Five birds were recaptured or killed at the point of banding from 1 year to 2 years 3 months after banding. Three others were shot, apparently on migration, in Kansas, Texas and Arizona (two the year of banding, one the following year). Nine were shot on or near the wintering grounds in west-central Mexico in the states of Nayarit, Jalisco, Guanajuato, Colima, Michoacan and Guerrero. These records seem to locate the wintering area of the Ellis County dove population. A Mourning Dove banded by Gerald W. Tomanek on 27 April 1950 was shot in Goliad County, Texas on 25 November 1950.

Cuckoos: Cuculidae

Cuckoos are sluggish, secretive and more often heard than seen but many are killed in accidents each year. They are slender with rounded wings and long graduated tails with white-tipped rectrices.

* **Yellow-billed Cuckoo**—*Coccyzus americanus*

Allen (1872:139) "common" (summer 1871). Cooke (1888:125) first in Ellis, 1884—12 May (Watson). Wooster, *et al.* (notes) recorded from 7 May to 3 October; nest found 1933.

Uncommon transient and summer resident from late April or early May to late September or early October. Extreme dates: 24 April-6 October. Cuckoos occur in all wooded habitats especially in towns, windbreaks and in thick undergrowth along streams. Birds are generally inconspicuous but each summer a good number are found dead, the victims of plate glass windows and automobiles.

Breeding Data: A nest with eggs was found on 22 June; a juvenal fledged from another nest on 26 July.

Specimens: 6 (4 M, 2 F); 1 F (CAE). *Banded:* 20.

Black-billed Cuckoo—*Coccyzus erythrophthalmus*

Probably a rare straggler. The only valid records are two single birds netted on Big Creek on 15 and 17 September 1970.

Specimens: 2. *Banded:* None.

Barn Owl: Tytonidae

The Barn Owl is more common than casual observation suggests. Any light-colored owl flushed from under a bridge, a crevice or a building is likely to be this species. The heart-shaped facial disc, when visible, is distinctive.

* Barn Owl—*Tyto alba*

Wooster, *et al.* (notes) nested in Hays park, 1933

Present status uncertain but probably an uncommon local, permanent resident. There are scattered records throughout the year, usually of birds roosting or nesting in abandoned buildings, river bluffs and under bridges.

Breeding Data: The nesting season is apparently an extended one. Three of four nests under observation during late July 1970 had half to nearly fledged young; the fifth held lightly incubated eggs which hatched by late August and were half grown by 20 September.

Specimens: 1 F. *Banded:* 15.

Owls: Strigidae

Owls are large-headed, short-necked raptors. Most are nocturnal and are best known from their distinctive calls. Most spend the day in a secluded spot often marked by droppings and pellets but several, notably the Short-eared, feed and are active during the day. Roosting birds are frequently mobbed by crows and other species.

* Screech Owl—*Otus asio*

Wooster, *et al.* (notes) reported various years.

Uncommon permanent resident. Screech Owls occur primarily in towns and wooded habitats, especially along streams. Birds are reported sporadically throughout the year.

Breeding Data: No recent nesting documented but in 1933 young fledged in late June.

Specimens: 3 (2 F, 1 M). *Banded:* 9

* Horned Owl—*Bubo virginianus*

Allen (1872;139) "not seen alive, but a dried carcass was found near Fort Hays" (summer 1871). Wooster, *et al.* (notes) reported various years.

Common permanent resident in wooded habitats. Horned Owls nest chiefly along streams and in groves in more open areas, often utilizing abandoned crow or hawk nests. They also nest in buildings and in river cliffs. They commonly visit urban areas and a few nest along Big Creek at Hays.

Breeding Data: Horned Owls nest very early; nests with eggs

were reported by 12 February and nests with young by 20 March. Fledging young were reported from mid-May through early June.

Specimens: 3 F. *Banded*: 3.

Recoveries: A nestling banded in College Pasture on 17 May 1941 by Clarence Stinemetze was found dead in Russell (25 miles east) about 23 June 1942.

(**Snowy Owl**—*Nyctea scandiaca*)

Possibly a rare winter visitor to Ellis County. The only sight record (not verified) is one reported northwest of Hays on 8 December 1961 (Schlegel).

* **Burrowing Owl**—*Speotyto cunicularia*

Allen (1872:139-140) "a large colony observed near the post, and several colonies elsewhere . . ." (summer 1871). Wooster, *et al.* (notes) 6 and 17 May 1941.

Common (local) transient and summer resident from late March to late September. Extreme dates: 27 March-28 September. Most conspicuous during April and May and in July. Two winter records: 26 December 1967 and 4 January 1969. Owls are most numerous in the central and southern two-thirds of the county, occurring primarily in pasture land and along roadsides.

Breeding Data: No burrows have been examined for contents but adults are at their nest burrows by late March and young have fledged by early or mid-July; earliest recorded fledging 28 June.

Specimens: 3 (2 M, 1 F); also 6 at UK (22 Sept. 1881, Ellis, Watson; 5 from 4 April 1903, Hays, Miller); 1 at PU (3 Apr. 1885, Ellis, Watson); 8 at MCZ.

Banded: None.

(**Barred Owl**—*Strix varia*)

There are two unconfirmed sight records: 28 December 1959 (Christmas count); 15 March 1959, Big Creek (WHQ).

* **Long-eared Owl**—*Asio otus*

Wooster, *et al.* (notes) recorded between 25 April and early July.

Possibly present all year. Uncommon, low density transient and winter resident and occasional summer resident. Scattered records between 23 March and 16 May and between 20 September and 1 January. Nested near Hays in 1968. They occur in wooded areas including towns, windbreaks and along wooded streams.

Breeding Data: A nest with four young was found in a timber

claim north of Hays on 16 May 1968 (Woodham and Thomasson).
Wooster (*loc. cit.*) reported fledged young on 18 and 19 June 1933.

Specimens: 2 F. *Banded:* 5.

* **Short-eared Owl**—*Asio flammeus*

Wooster, *et al.* (notes) 2 nests with young 19 May 1942; 26
March 1952.

Uncommon transient and winter resident from early November to late April. One recent breeding record: a family reported near Munjor on 24 July 1970 and one seen 21 August. Extreme dates: 1 November-26 April. Short-ears are recorded most frequently during the winter months. They occur in open country—both cultivated fields and grasslands—and are most conspicuous when coursing over fields searching for prey. The bouncing flight is distinctive.

Specimens: 2 (1 M, 1 F); 1 M (CAE). *Banded:* None.

Saw-whet Owl—*Aegolius acadicus*

Probably a casual transient and possible winter visitor. The only two confirmed records (14 October and 1 November 1967) are both from wooded Big Creek near FHKSC.

Specimens: 1 F. *Banded:* 1.

(**Hawk Owl**—*Surnia ulula*)

The record by Wooster and others on 27 December 1952 is unacceptable, Carson (1953:25-26).

Goatsuckers: Caprimulgidae

Goatsuckers are cryptically-colored nocturnal birds best known by their distinctive calls. When flushed during the day they flutter a short distance and again alight. The nighthawk flies during the day and the white wing patches are very conspicuous overhead. The day is often spent on a fence post or other conspicuous spot.

Whip-poor-will—*Caprimulgus vociferus*

Apparently an occasional transient. The only two records are single birds reported 9 June 1962 (Big Creek, FHKSC) and 14 October 1966 (TRM). The distinct evening song has not been reported from Ellis County.

Specimens: 1 F. *Banded:* None.

Poor-will—*Phalaenoptilus nuttallii*

Imler (1936:303) 20 July 1929, "Saline River, Ellis County."

Probably an uncommon transient and possible local summer resident (in northern one-third of county) but no recent summer record.

Single birds have been identified on four occasions: timber claim north of Hays on 2 May 1962; Smoky Hill River on 1 September 1970; Big Creek near FHKSC campus on 5 October 1968 and 1 September 1970.

Specimens: 1 M. *Banded*: None.

* **Common Nighthawk**—*Chordeiles minor*

Allen (1872:139) "abundant" (summer 1871). Cooke (1888: 138) first for Ellis in 1884—10 May (Watson). Wooster, *et al.* (notes) recorded from 2 May to 12 October; regular breeder.

Common transient and summer resident from early May through early October. Extreme dates: 7 May-7 October. Migration peaks are in late May and late September. Nighthawks are most common in the northern one-fourth of the county. They occur in towns and open country, especially grasslands with break areas which provide small hill tops with sparse grass. Flocks concentrate over Hays in evenings especially during migration.

Breeding Data: Nestlings have been reported during late June and early July.

Specimens: 4 (2 M, 1 F, 1 juv); 4 at UK (2 on 13 July 1885, Ellis, Watson; 2 on 23 July 1965, Pfeifer, Rising); also 11 at MCZ.

Banded: 6.

Swifts: Apodidae

Swifts are almost always observed in flight where they somewhat resemble swallows. The long, slender wings are held stiffly and appear to beat alternately. Swifts are short-tailed and chatter in flight. During migration numbers roost in area chimneys. Swifts do not perch on utility wires.

* **Chimney Swift**—*Chaetura pelagica*

Common transient and uncommon summer resident from mid-April to mid-October. Extreme dates: 14 April-13 October. Migration peaks are in May and September. They occur primarily in towns but during migration smaller numbers may occur almost anywhere. Most birds nest in towns but a few use abandoned buildings in rural areas. Large chimneys are the preferred roosting and nesting site but silos and farm buildings are occasionally utilized.

Breeding Data: No active nests were reported but abandoned nests and summer occupancy of local chimneys are considered proof of breeding.

Specimens: 1 F. *Banded*: 31.

Recoveries: One banded on Big Creek on 21 May 1968 was found dead in a chimney in Hays on 11 June 1968.

Hummingbirds: Trochilidae

Hummingbirds can be confused only with the sphinx moths which visit flower beds on dark days or at dusk. Hummingbirds are rare in Ellis County and each bird should be examined carefully since additional species should occur here during migration.

Ruby-throated Hummingbird—*Archilochus colubris*

Imler (1936:303) 22, 23 September 1927; "fall" of 1934, Ellis County (Wooster).

Rare transient from late May to late June and during September. Extreme dates: 21 May-27 June; 14-27 September; also one seen 24 July 1970. Fall sight records are assumed to be this species. Spring records and all birds actually handled were confirmed Ruby-throats. Reported from flower beds in yards in town, the FHKSC campus and Big Creek.

Specimens: 4 (1 M, 3 F). *Banded:* None.

Kingfishers: Alcedinidae

The Belted Kingfisher is unmistakable with its large head, heavy bill and blue-gray plumage. They dive into the water for fish either from the air or from an exposed perch. The nest is at the end of a tunnel in a steep mud bank.

* Belted Kingfisher—*Megaceryle alcyon*

Allen (1872:139) "common," summer 1871. Cooke (1888:127) first for Ellis, 1884—3 April (Watson). Wooster, *et al.* (notes) recorded between 21 March and 10 October; wintered 1932-33.

Regular low density transient and summer resident; most regular from early March through October. A few birds winter whenever there is open water, usually along the Smoky Hill River or nearby springs. A few birds remain on Big Creek until all water is frozen. Kingfishers occur along ponds and streams throughout the county and nest in stream and river banks.

Breeding Data: No nest burrows were excavated but burrows were seen in 1933 and 1965.

Specimens: 1 F. *Banded:* 18.

Woodpeckers: Picidae

Woodpeckers are usually seen hitching their way up tree trunks while propped by their stiffened tails but flickers spend much time on the ground feeding on ants and the Red-headed Woodpecker frequently captures flying insects from an exposed perch. The shy sapsucker is often overlooked except for its characteristic rows of holes drilled into favorite trees for sap.

• **Yellow-shafted Flicker—*Colaptes auratus***

Allen (1872:139) "rather rare, and very wary." One seen at distance seemed nearly red enough for *C. cafer*. Specimens had red in cheek patches (summer 1871). Wooster, *et al.* (notes) reported various years. Snow (1876:134) one typical and two hybrids collected, Ellis, Watson. Cooke (1888:133) 21 March 1884.

Common transient and summer resident from late March to mid-October. Some birds winter each year. Most winter birds, unlike breeding birds, are intergrades with *C. cafer*. They occur chiefly in towns and along wooded streams but non-breeding birds are commonly seen in more open areas.

Breeding Data: Birds are paired and nest excavation begins by late March or early April. Most young fledge by mid- or late June.

Specimens: 8 (5 M, 3 F); also 1 at MCZ. *Banded:* 39 + 11 hybrids.

Returns: Two breeding birds were recaptured after intervals of two and three years respectively.

Red-shafted Flicker—*Colaptes cafer*

Wooster, *et al.* (notes) recorded between 3 October and 25 April.
Snow (1876:134) one typical, Ellis, Watson.

Uncommon transient and winter resident, usually from mid-September to mid-April; most abundant October through March. Extreme dates: 10 August-20 April. Many transient and winter birds are intergrades with *C. auratus*. Red-shafts occur in most wooded habitats especially windbreaks and along wooded streams. They are attracted to junipers and other fruit-bearing trees.

Specimens: 2 (1 M, 1 F). *Banded:* 12.

Returns: A female banded in the College Relict Area on 18 October 1968 was recaptured at the same location on 26 January 1970.

Red-bellied Woodpecker—*Centurus carolinus*

Wooster, *et al.* (notes) recorded 9 February, 9 May, 9 and 25 July.

Status uncertain. There are scattered sightings from 9 October to 28 April. There is still no evidence of breeding. One was seen on 25 July 1961 (WHQ). Red-bellies are usually seen singly in woods along streams or at feeding stations (Harold Kraus, 1968-69; C. Ely, 1970-71).

Specimens: None. *Banded:* 1.

* **Red-headed Woodpecker**—*Melanerpes erythrocephalus*

Allen (1872:139) "abundant wherever there was timber . . ." (summer 1871). Wooster, *et al.* (notes) recorded between 11 April and 11 November.

Common transient and summer resident usually from late April to early September. Extreme dates: 31 March-26 September. Late stragglers are typically immature birds. Most numerous from mid-May through August. Red-heads occur in towns, parks and along wooded streams.

Breeding Data: No nest cavities have been examined but nesting begins by mid-May and nestlings are present during mid- and late June. Fledging has been observed from mid-July to early September.

Specimens: 6 (2 M, 1 F, 3 ?); also 3 at MCZ; 1 at NOF.

Banded: 4

Lewis Woodpecker—*Asyndesmus lewis*

Vagrant. No recent records. Watson collected one from a flock of six to eight at Ellis on 6 May 1878 (Snow, 1877-1878:38).

Specimens: 1 at UK. *Banded:* None.

Yellow-bellied Sapsucker—*Sphyrapicus varius*

Wooster, *et al.* (notes) 20 April 1940.

Rare transient and winter resident usually from late November through mid-January and from late March through mid-April. Extreme dates: 6 October-15 January; 29 March-12 April. Sapsuckers are usually observed in ornamental evergreens on the FHKSC campus and on Fort Hays Experiment Station.

Specimens: 2 (1 M, 1 F). *Banded:* 1.

* **Hairy Woodpecker**—*Dendrocopos villosus*

Wooster, *et al.* (notes) reported several years.

Regular, uncommon permanent resident; most conspicuous during the winter months when many visit feeding stations. They occur in wooded habitat, especially in towns and along wooded streams and in the non-breeding season birds disperse into more open areas.

Breeding Data: No nest cavities have been examined. However, courtship has been observed in mid-April; nestlings have been reported from early May to mid-June. Fledging has been reported from late May to late June.

Specimens: None. *Banded:* 30.

Returns: A male banded 19 December 1963 was last recaptured on 22 May 1968 nearly 4½ years after first banding.

* **Downy Woodpecker**—*Dendrocopos pubescens*

Allen (1872:139) "a single individual seen" (summer 1871).
Allen (1872:143) ". . . and one on Big Creek, near Fort
Hays." Wooster, *et al.* (notes) reported several years; breeding
1933.

Common but low density permanent resident, most conspicuous during the winter months when many visit feeding stations. Downies occur in wooded habitat, especially in towns and along wooded streams. In the non-breeding season birds occur in all wooded habitats and also in patches of tall weeds.

Breeding Data: No cavities were examined but newly fledged young were reported 10 June 1969.

Specimens: 3 F. *Banded:* 75.

Returns: Eight birds were recaptured after periods of from 3 months to 1 year 3 months.

Tyrant-flycatchers: Tyrannidae

Flycatchers have large heads and broad bills and most feed by capturing flying insects from an exposed perch. Some such as the kingbirds are aggressive and conspicuous; others such as the *Empidonax* and wood pewees are retiring and usually noted only when calling. Some species can be identified in the field only by song.

* **Eastern Kingbird**—*Tyrannus tyrannus*

Allen (1872:138) "abundant" near timbered streams (summer 1871). Wooster, *et al.* (notes) recorded 26 April-7 October.

Common transient and summer resident from late April or early May through late September. Extreme dates: 24 April-24 September. Peak arrival is during the first week of May; peak departure is apparently in late August. In 1968 Eastern Kingbirds were outnumbered by Western Kingbirds three to one in Ellis County. They were most numerous in the northern one-third of the county and were more common in open areas than were *verticalis*. The two species frequently nest in close proximity.

Breeding Data: Nest building begins in early or mid-May; eggs were found through 4 July; large young from 25 May through 20 July.

Specimens: 2 M; 1 M (CAE); also 3 at MCZ. *Banded:* 31.

Recoveries: A bird banded on 25 June 1968 was a net casualty on 1 June 1970.

° **Western Kingbird**—*Tyrannus verticalis*

Allen (1872:139) "very numerous along the timbered streams"; nests with fresh eggs 4-10 June 1871. Cooke (1888:148) Watson at Ellis, 22 May 1884. Snow (1903:161) three collected by Watson, Ellis. Wooster, *et al.* (notes) recorded 19 April-25 October.

Common transient and summer resident from late April or early May through late September. Extreme dates: 21 April-24 September. Peak arrival is during the first week of May; peak departure is apparently in late August. In 1968 this species outnumbered the Eastern Kingbird by three to one. Westerns were most numerous in the southern two-thirds of the county, especially in towns, windbreaks and farmsteads.

Breeding Data: Earliest nest building was observed on 5 and 13 May; ten full clutches (four to five eggs) were recorded between 6 and 29 June; nestlings were observed from 22 June to 4 August; earliest observed fledging was 11 July.

Specimens: 5 (1 M, 1 ♀, 3 I); also 15 at MCZ. *Banded:* 24.

° **Scissor-tailed Flycatcher**—*Muscivora forficata*

Wooster, *et al.* (notes) reported 6 May-6 October.

Uncommon transient (chiefly in fall) and low density summer resident from early April to mid-October. Extreme dates: 7 April-13 October. Scissor-tails are most numerous during May, September and October; flock of 40-50 reported 24 September 1960. In migration they occur chiefly on lines and fences along roadsides. They nest sparingly in open areas with scattered trees (*e. g.*, golf courses, pastures, open hedgerows).

Breeding Data: Actual data are few but eggs were found between 20 May and 9 July; fledglings were observed on 10 and 16 July.

Specimens: 9 (4 M, 4 F, 1 I). *Banded:* None.

° **Great Crested Flycatcher**—*Myiarchus crinitus*

Allen (1872:139) "one specimen . . . only one seen" (summer 1871). Wooster, *et al.* (notes) 6, 7 May 1941; 6 May 1950.

Common transient and summer resident from late April or early May to at least late August. Extreme dates: 23 April-19 September. Birds usually arrive during the first week of May and are most abundant from mid-May through July. Birds are very secretive in late summer and fall departure dates are uncertain. In 1970, local birds departed in August and four transients were netted 15-19 September. They occur almost entirely along wooded streams and in wooded urban areas.

Breeding Data: No nest cavities were examined but nest site examination was observed in mid-May and fledged young were reported by mid-July.

Specimens: 3 M; also 1 at MCZ. *Banded:* 21.

* **Eastern Phoebe**—*Sayornis phoebe*

Wooster, *et al.* (notes) 14 April-17 May 1941 (nest building 24 April).

Low density transient and summer resident from late March to mid-October. Extreme dates: 27 March-11 October. Sightings are scattered but most were from late March through April. Easterns are largely restricted to bridges over running streams, culverts and occasionally near small ponds.

Breeding Data: Pairs are singing on territory by late March or early April but few definite nestings have been recorded. A nest including two cowbird eggs was found near Hays on 1 May.

Specimens: 3 M; 1 F (CAE). *Banded:* 6.

* **Say's Phoebe**—*Sayornis saya*

Cooke (1888:151) "bulk of arrivals" at Ellis, 1884 on 18 April (Watson). Snow (1876:133) September 1875, Ellis (Watson).

Uncommon transient and rare summer resident from early April to early September. Extreme dates: 8 April-8 September. Most of the scattered records are during late April and early May. A pair nested on the C. W. Kraus farm southwest of Hays during 1968 and 1969. Say's Phoebes generally occur around stone buildings in open country rather than near flowing streams.

Breeding Data: Young fledged from a nest on the C. W. Kraus farm on 7 June 1968. By 13 June this pair had laid a second clutch in the same nest; on 15 July these young fledged. The only other positive egg date is 19 June.

Specimens: 1 (sex ?). *Banded:* 11.

Traill's Flycatcher—*Empidonax trailli*

Wooster, *et al.* (notes) "rare breeder" 6 May-15 October 1933 (5 July, two gathering food) (probably error).

Regular transient; common in spring (mid-May-early June); uncommon in fall (late July-early September). Extreme dates: 12 May-12 June and 23 July-23 September. The spring migration is compressed with the peak 20-25 May. The fall migration is extended without an obvious peak (Ely, 1970b:202). Birds are limited to wooded vegetation especially along streams and in towns. Early re-

ports of nesting near Hays are probably in error. There is no recent evidence of any nesting attempt.

Specimens: 31 (18 M, 13 F). *Banded:* 127.

Least Flycatcher—*Empidonax minimus*

Regular transient; common in spring (May); uncommon in fall (late July through early October). Extreme dates: 29 April-30 May and 16 July-18 October. The spring peak is usually mid-May; no fall peak is discernible. More common than *E. trilli* and migration is more extended especially in fall (Ely, 1970b:199). Birds occur in all wooded habitats and also in tree clumps in open areas, and in tall, dense weed growth. This is the *Empidonax* most frequently seen and heard by the casual observer.

Specimens: 18 (9 M, 8 F, 1 ?). *Banded:* 172.

Acadian Flycatcher—*Empidonax virescens*

Probably a casual transient. The only confirmed record is a specimen netted along Big Creek, FHKSC on 5 September 1970.

Hammond's Flycatcher—*Empidonax hammondi*

Apparently a casual fall visitor. Three specimens have been taken. A dead bird was brought into a Hays residence by a cat on 15 September 1961 and single birds were netted in tall weeds and small boxelder trees along Big Creek on 4 October 1966 and 16 September 1970 (Ely, 1968).

Specimens: 3 (2 M, 1 ?). *Banded:* None.

Eastern Wood Pewee—*Contopus virens*

Wooster, *et al.* (notes) 4 May 1941.

Probably a rare transient and occasional summer resident from mid-May to early September. The status of the two wood pewees in Ellis County is uncertain. Five sightings between 15 May and 3 June and a singing bird in a Hays park on and following 18 June 1968 were definitely *virens* by song type. However, only one of six wood pewees collected was of this species (Big Creek, 18 May 1967, identified by L. L. Short, Jr.). The one fall record (5 September, WHQ) was not confirmed. Breeding has not been documented but the June 1968 bird appeared to be on territory. Wood pewees are confined to wooded stream banks and wooded urban areas.

Specimens: 1. *Banded:* None.

Western Wood Pewee—*Contopus sordidulus*

Probably an occasional transient in wooded habitat. No singing birds have been reported but five specimens (16 May-4 June and

30 August-15 September) were identified as *sordidulus* by Dr. L. L. Short, Jr. or by Dr. Allan R. Phillips. Netting suggests that this may be the more common species in Ellis County.

Specimens: 5 M. *Banded*: None

Olive-sided Flycatcher—*Nuttallornis borealis*

Cooke (1888:152) "rare transient" at Ellis (Watson). Snow (1903:161) fresh specimens 22 May and 14 September 1875, Ellis, Watson.

Rare spring (May) and fall (September) transient. Only six sightings have been reported: 8 and 17 May; 10 and 20-23 September. A few individuals are seen each year almost always in the exposed tops of tall dead trees in moderately open habitat. Most birds were seen on the FHKSC campus and in Hays.

Specimens: None. *Banded*: 1.

Larks: *Alaudidae*

The Horned Lark is typically seen on or near the ground often with sparrows and longspurs from which it differs in its slender bill, black tail and habit of walking. The face pattern (when visible) and flight song are also distinctive.

*** Horned Lark—*Eremophila alpestris***

Allen (1872:135) "abundant . . . decidedly the most numerous species in the vicinity of Fort Hays." First brood fledged in May; young flocking before end of June; 11 June 1871—half grown young; 12 June—young out of nest unable to fly. Wooster, *et al.* (notes) reported several years.

Common permanent resident in grassland habitat and cultivated land. Numbers fluctuate seasonally with arrival and departure of transient and wintering birds. Status of these populations has not yet been investigated. In 1968 overall numbers were low until mid-October. Numbers then peaked by mid-November and remained high until January. During winter, Horned Larks are most numerous in the central and southern two-thirds of Ellis County.

Breeding Data: Apparently two broods occur with the first beginning very early. Flying juvenals were reported on 10 April and 12 May. Eggs were reported in mid-June and juvenals in early August.

Specimens: 14 (5 M, 8 F, 1 ?); also 12 at UK (31 January-3 April 1885, Ellis, Watson); 9 at MCZ (4, Hays, 1871; 5, Ellis, 1884).

Banded: None.

Swallows: Hirundinidae

Swallows are highly maneuverable fliers with long narrow wings. They often warble in flight and typically perch conspicuously on utility lines. Mixed flocks gather over water to feed when insect numbers and weather conditions are favorable.

Tree Swallow—*Iridoprocne bicolor*

Regular, low density spring transient from late April to mid-May. The only fall record is a small flock over Rohr-Jacobs Lake on 6 September 1970 (CAE). Extreme dates: 25 April-17 May. The largest group reported was 11 in a flock of 13 swallows on 12 May 1967. Thirteen were netted during 3-16 May 1967. Birds are usually seen in mixed swallow flocks over or near water.

Specimens: 1 F. *Banded:* 13.

Bank Swallow—*Riparia riparia*

Wooster, *et al.* (notes) early records actually refer to Rough-winged Swallow.

Regular, rare spring transient during May (3-25). The only fall record is of a single bird near Big Creek on 13 September 1970. Recent records have involved a few birds in mixed swallow flocks over or near water. Where details are available, early reports of Bank Swallows clearly refer to the next species.

Specimens: 1 M. *Banded:* 1

* Rough-winged Swallow—*Stelgidopteryx ruficollis*

Allen (1872:135) "not uncommon along streams," building; nests not yet completed, 7 June 1871. Wooster, *et al.* (notes) recorded (as Bank Swallow) 10 April-21 September; documented breeding 1925, 1928, 1933.

Uncommon, but regular transient and summer resident from early April to mid-September. Extreme dates: 3 April-13 September. The spring migration peak is usually in mid-May. Transient birds occur commonly in mixed swallow flocks over or near water. Breeding birds nest singly in burrows in stream banks. At all seasons most activity is near water and birds are seen throughout the summer along all major streams.

Breeding Data: No burrows were excavated but pairs have been seen entering burrows by mid-April and fledged young were reported during early and mid-July.

Specimens: 1 F; also 1 at MCZ. *Banded:* 203.

Recaptures: Six adults banded from feeding flocks on Big Creek, were recaptured in similar flocks the following year. Whether these

birds were transients or breeding birds is unknown. An adult banded on 19 May 1968 was found injured near Beverly, Kansas (74 miles east of Hays) in May 1969.

° **Barn Swallow—*Hirundo rustica***

Snow (1903:161) one collected near Ellis, 26 May 1875 (Watson). Wooster, *et al.* (notes) reported 4 April-28 October.

Common transient and summer resident from mid-April through late September. Extreme dates: 14 April-29 September. The northward migration peak is early or mid-May; the southward peak in early September. During migration peaks large feeding flocks of mixed swallows concentrate at favored localities over ponds and streams. Barn Swallows occur throughout the county, chiefly on farms. Most nesting is in open farm buildings; others nest under bridges and in culverts.

Breeding Data: Anthony (1969) studied 199 Ellis County nestings in 1968. Ninety-two percent of the nests were in farm buildings; the remainder under bridges and culverts. Eggs of the first brood were laid between 11 May and 18 June (peaks during 1-4 June and 9-11 June); eggs of the second brood between 21 June and 6 August (peaks during 15-19 July and 30 July and 1 August). Two late eggs were laid on 2 and 3 September. Young left the nesting area within a few days of fledging. Most of the nesting population departed in early and mid-September.

Specimens: 3 (1 M, 2 ?). *Banded:* 1939.

Recaptures: A nestling banded near Hays on 19 August 1968 was netted and released at Cheyenne Bottoms, Barton Co. on 29 September 1968 (EFM); an adult banded near Catherine 21 August 1968 was killed near Quetzaltenango, Guatemala, during October 1968. Forty-nine adults were recaptured locally the summer following original banding and ten were recaptured in two successive summers. Only five of more than 1200 young banded returned the following summer. The proportion of adults returning was much higher but less than expected. It is very unfortunate that this study could not be continued.

° **Cliff Swallow—*Petrochelidon pyrrhonota***

Allen (1872: 135) "large colonies breed on the cliffs bordering the Saline River" (summer 1871). Imler (1936:305) "at least 20 pairs nesting at pond in Ellis Co." (Harold Kraus farm). Wooster, *et al.* (notes) 10 May 1941 (50 pairs on Smoky Hill River).

Uncommon transient and very local summer resident from early May to at least mid-August. Extreme dates: 3 May-13 August.

Nesting birds apparently depart immediately after nesting. During migration birds occur in mixed or pure flocks over or near water. During the breeding season they are confined to the vicinity of nesting colonies under bridges, culverts and (formerly at least) cliff sides. Recent colonies have been observed under bridges over Big Creek and the Smoky Hill River and in irrigation culverts in the southwest part of the county.

Breeding Data: A colony of 220-250 nests under the Smoky Hill River bridge 12 miles south of Ellis had fresh eggs on 31 May 1961.

Specimens: 1 M. *Banded:* 18.

* **Purple Martin**—*Progne subis*

Allen (1872:135) "few pairs near Fort Hays, building in bird boxes" (summer 1871). Wooster, *et al.* (notes) reported 2 April-16 May.

Common transient and summer resident from late March to late July or early August. Extreme dates: 22 March-16 August. Early arrivals typically precede the main colonies by up to two weeks. In 1967 the first birds were seen on 24 March but the first flock did not arrive until 26 April, following an unseasonably cold period. Birds depart southward soon after completion of nesting. Martins are confined chiefly to towns and rarely are more than a few present in the mixed swallow flocks reported commonly elsewhere. Nesting is confined to "martin houses" in towns.

Breeding Data: Few nest boxes were examined but eggs are present by early May.

Specimens: 1 F. *Banded:* None.

Jays, magpies, and crows: Corvidae

The common corvids are conspicuous and well-known. The magpie is a permanent resident that seems to be increasing in numbers. Blue Jays and crows, noisy and aggressive during much of the year, become relatively silent as they nest in urban areas in close proximity to humans. Both have impressive diurnal migrations during spring and fall. Several Rocky Mountain corvids have wandered eastward to the Hays area and should be expected again, probably in early winter or late fall.

* **Blue Jay**—*Cyanocitta cristata*

Allen (1872:138) "abundant in the timber" (summer 1871).
Wooster, *et al.* (notes) recorded 21 April-25 October.

Common spring and fall transient and summer resident from mid-April to late September and with stragglers through November.

Extreme dates (including stragglers): 5 April-22 November. Major migration peaks are during late April and the first few days of May and the last half of September. A few birds remain during most winters (*e. g.*, 1962-63, 66-67, 67-68, 68-69, 69-70) usually in sheltered areas along the Smoky Hill River (*e. g.*, Harold Kraus farm). Jays are most common in towns and along wooded streams but during non-breeding season disperse to more open areas. Migrating flocks, usually following the streams, are a conspicuous part of each season.

Breeding Data: Nest building occurs in late April and early May. Eggs were reported until 7 June and young from early to mid-June. The earliest fledging date is 19 June.

Specimens: 10 (4 M, 6 F). *Banded:* 231.

Recaptures: Three birds were recaptured locally at intervals of from 4 months to 1 year 10 months after banding. A local banded on 15 July 1961 was killed at Lindsay, Oklahoma on 7 December 1963.

◦ **Black-billed Magpie—*Pica pica***

Wooster, *et al.* (notes) recorded 2 January-21 February 1940; 24 May 1941. Wooster (1955:16-17) "becoming more numerous as a summer resident," two seen southwest of Ellis, 18 September 1955 by MVW.

Low density, local permanent resident. Magpies are most regular along the Saline River at the northwest corner of the county, but also along the Smoky Hill River in southwest part of the county and north of Hays in timber claims and hedgerows where they have nested since at least 1961. The magpie is apparently increasing in numbers. In 1964, four pairs nested in hedgerows bordering one section north of Hays. Magpies generally remain in the vicinity of nesting areas. Flocks of 12-15 birds have been reported in fall and birds disperse over a wider area at this time.

Breeding Data: Two known clutches were completed between 23 and 27 April. The latest observed date for eggs is 20 May; the earliest for chicks, 7 May. Three nests fledged young during the period 1-5 June.

Specimens: 2 M. *Banded:* 7.

Common Raven—*Corvus corax*

Former resident. In the summer of 1871 Allen (1872:138) stated "only a few pairs seen, though reported to be common." Ravens are said to have been common in the Ellis County area until the buffalo were exterminated.

° **Common Crow**—*Corvus brachyrhynchos*

Wooster, *et al.* (notes) reported various years.

Present all year. Abundant transient; common summer resident; uncommon winter resident. Major migration movements occur from late March to late April and from late September through October. Local birds are breeding before the last transients have departed. Crows occur throughout the county, nesting particularly in towns and farmyards and less commonly along wooded streams. Crows are most conspicuous when feeding in fields on farms and ranches and are very secretive during the actual nesting period.

Breeding Data: Nest building was observed between 19 March and 14 April; eggs by mid-April; large chicks by 5 May; fledging on 28 May and 3 June.

Specimens: 2 (?). *Banded:* 4.

Pinyon Jay—*Gymnorhinus cyanocephalus*

Vagrant. The only record is a flock of three seen briefly on the FHKSC campus on 12 November 1960 (Ely, 1961a:21).

Clark's Nutcracker—*Nucifraga columbiana*

Casual visitor. No recent records. Nutcrackers have been reported twice. Watson saw two near Ellis on 1 October 1888 (Snow, 1887-1888:62) and Eastman saw one or more on the FHKSC campus on 15 October 1953 (Carson, 1954:13-14).

Titmice: Paridae

Only the familiar Black-capped Chickadee occurs regularly in Ellis County. The small, slender, long-tailed bushtit has occurred as a vagrant and the crested, grayish Tufted Titmouse occurs not far east of the area.

° **Black-capped Chickadee**—*Parus atricapillus*

Allen (1872:134) "frequent in timber along streams" (summer 1871). Wooster, *et al.* (notes) reported various years; common breeder 1933.

Common permanent resident. Some winter movement is possible but has not yet been documented. Chickadees occur most regularly in town and along wooded stream banks. They disperse more widely during winter to tall weedy growth and more open areas; also to feeding stations.

Breeding Data: No nest cavities were examined but nesting begins in early April with large chicks or fledging by the last of April.

Specimens: 13 (6 M, 2 F, 5 ♀); 1 F (CAE). *Banded:* 133.

Returns: Eleven birds were recaptured locally after periods of from 3 months to 2 years 2 months after banding. One bird was renetted eight times in a 4-month period.

Common Bushtit—*Psaltriparus minimus*

Casual visitor. The only record is of four birds netted (REH) in tall weeds and small trees along Big Creek near FHKSC on 16 November 1968 (Ely, 1969a).

Specimens: 2 F; 1 (CAE); 1 (SWC). *Banded:* None.

Nuthatches: Sittidae

Nuthatches are large-headed, short-tailed, acrobatic tree climbers often going down trees head first. They occur as winter visitors and transients and are never common. The Red-breasted favors conifer trees and feeding stations; the White-breasted favors riparian growth.

White-breasted Nuthatch—*Sitta carolinensis*

Rare transient and winter resident from early September to mid-May; usually recorded sparingly between 23 December and 15 March. Two were seen on the Saline River north of Ellis on 3 July 1970 (CAE). Extreme dates: 1 September-12 May. Most were recorded along wooded stream banks in Hays, on the Fort Hays Experiment Station, or on Big Creek near Ellis.

Specimens: 1. *Banded:* 2.

Red-breasted Nuthatch—*Sitta canadensis*

Wooster, *et al.* (notes) 22 March-7 April and winter of 1957-58.

Low density transient and winter resident from early October to late April. Extreme dates: 3 October-29 April. Wintering birds are usually found in ornamental evergreens on the Fort Hays Experiment Station, the FHKSC campus or in towns at feeding stations. In migration they also occur in deciduous trees along streams.

Specimens: 3 (1 M, 1 F, 1 ♀). *Banded:* 7.

Creepers: Certhiidae

The Brown Creeper is a small, brown-backed tree climber with slender decurved bill and high pitched call. It typically feeds by spiraling up one tree and then dropping down to the base of another to repeat the process.

Brown Creeper—*Certhia familiaris*

Wooster, *et al.* (notes) 1 November-3 April.

Regular, uncommon transient and winter resident from early

October to late March. Extreme dates: 10 October-27 March. Creepers are more often observed in fall and early winter than during late winter and spring. They occur usually in wooded habitat along streams and in towns.

Specimens: 9 (2 M, 3 F, 4 ?). *Banded:* 25.

Wrens: Troglodytidae

Wrens are small, very active birds with short tails that are usually cocked over the back. Most occur in thick vegetation of some type. The House Wren is a fairly common nester in urban yards.

*** House Wren—*Troglodytes aedon***

Allen (1872:134) "abundant"; fresh eggs 7 June 1871. Wooster, *et al.* (notes) recorded 12 April-3 October.

Common transient and summer resident from late March or early April through late October. Extreme dates: 15 March-3 November. Most numerous from mid-April through early September. They occur in wooded and shrubby habitats along streams and in yards and on farmsteads.

Breeding Data: Nest building begins in late April; young were recorded from late May to mid-July.

Specimens: 14 (6 M, 6 F, 2 ?); also 5 at MCZ. *Banded:* 354.

Winter Wren—*Troglodytes troglodytes*

Rare transient and winter resident. Eleven records between 27 September and 20 February. Transient birds were netted in weedy undergrowth along Big Creek. Wintering birds also occur along the stream, favoring overhanging tree roots.

Specimens: 5 (3 M, 2 F). *Banded:* 2.

Bewick's Wren—*Thryomanes bewicki*

Probably a casual visitor. The only record is one netted in tall weed growth under cottonwoods on Big Creek, FHKSC on 17 May 1967 (Ely, 1969b:28).

Specimens: 1 F. *Banded:* None.

Long-billed Marsh Wren—*Telmatodytes palustris*

Cooke (1888:224) first for 1884—27 April. "Rare summer resident" at Ellis (Watson).

Apparently an occasional transient with scattered records between 5 April and 8 May and between 23 September and 21 October. Birds were observed in tall weed growth along Big Creek near Hays.

Specimens: 1 F. *Banded:* 2.

Short-billed Marsh Wren—*Cistothorus platensis*

Probably an overlooked, occasional transient. The only record is one collected in tall weeds around a farm pond on 8 October 1963.

Specimens: 1 F. *Banded*: None.

° **Rock Wren—*Salpinctes obsoletus***

Cooke (1888:270) "common summer resident," Ellis (Watson).
Wooster, *et al.* (notes) recorded 5 May and 6 October. Snow
(1876:129) 23 September 1875, Ellis, Watson.

Apparently a regular transient and local summer resident along the Saline River; recorded sporadically elsewhere. Extreme dates: 17 April-29 July. Rock Wrens occur regularly on rocky outcrops in the northern part of the county; occasionally at bridge abutments and similar sites.

Breeding Data: A recently fledged brood was seen on 12 July 1968 (LWA).

Specimens: None. *Banded*: 1.

Mimids: Mimidae

The three local mimids are long-tailed and short-winged with long slender bills. All are accomplished singers and the Brown Thrasher and Mockingbird are familiar backyard birds.

° **Mockingbird—*Mimus polyglottos***

Allen (1872:134) "common" in timber along Big Timber Creek; breeding; fresh eggs, 6 June 1871. Imler (1936:306) two on FHKSC campus, winter 1927-28. Wooster, *et al.* (notes) reported various years.

Low density permanent resident with scattered records throughout the year. Birds occur on the Fort Hays Experiment Station, in towns and in windbreaks and timber claims throughout the area but are usually inconspicuous. Some birds probably leave during winter.

Breeding Data: Eggs were recorded from 11 May to 9 July and one brood fledged on 10 June.

Specimens: 1 F; also 3 at MCZ. *Banded*: 11.

° **Catbird—*Dumatella carolinensis***

Allen (1872:134) "one or two" seen on Big Timber Creek; "not common" (summer 1871). Cooke (1888:267) first for 1884—25 May at Ellis (Watson). Wooster, *et al.* (notes) recorded from 4 May to 6 October.

Common transient and summer resident from early May to late September or early October. Extreme dates: 1 April-3 October. Most numerous from mid-May through July. Catbirds occur in thick undergrowth along streams and occasionally in yards in town.

Breeding Data: No nests have been reported but adults on territory and recently fledged young document breeding.

Specimens: 5 (3 M, 2 F). *Banded:* 159.

Returns: Two adults banded during May and June 1969 were recaptured the following May.

• **Brown Thrasher**—*Toxostoma rufum*

Allen (1872:134) "common" in timber bordering streams; breeding (summer 1871). Wooster, *et al.* (notes) recorded between 20 April and 30 October.

Common transient and summer resident and occasional winter resident. Usually present from mid-April to late September or early October. Extreme dates: 11 April-8 October. Most common from early May through August. A few birds wintered during: 1954-55, 59-60, 67-68, 68-69. Thrashers are conspicuous inhabitants of wooded and brushy habitats, especially along streams, in windbreaks, in towns and on farmsteads.

Breeding Data: Nest building begins in mid-May; eggs were reported from mid-May through mid-June; young from early June through early July. The latest egg date is 9 July; the earliest fledging date 12 June.

Specimens: 8 (5 M, 1 F, 2 ?); 1 at MCZ. *Banded:* 248.

Returns: Two adults banded in early summer were recaptured three and four months later respectively.

Curve-billed Thrasher—*Toxostoma curvirostre*

Casual visitor reported on two occasions: one seen in a windbreak on the College Farm on 21 April 1962 (DKD); one seen at a frozen pond surrounded and sheltered by trees on Harold Kraus farm on 1 January 1968 (CAE, MER) and collected the following day (Ely and Davis, 1968:14-15).

Specimens: 1 M. *Banded:* None.

Thrushes: Turdidae

The typical thrushes are dull-colored, quiet, inconspicuous transients that usually occur in shady vegetation and sing infrequently. Their field identification is often difficult. More familiar are the robin, bluebirds and solitaire. In winter these favor cedar trees and fruit-bearing ornamentals, often near houses.

* **Robin—*Turdus migratorius***

Cooke (1888:289) first for 1884—21 March, at Ellis (Watson).
Wooster, *et al.*, (notes) reported various years.

Present all year. Abundant transient; common summer resident; rare to uncommon winter resident (numbers varying each winter). Most numerous from mid-March through October. Peak migration periods during March and April and from late August through October. Fall migration is characterized by movement of successive flocks; spring migration may be similar or may be so gradual as to be scarcely noticeable. Breeding birds occur most commonly in towns and parks, less common along streams and rarely in wind-breaks and other wooded habitats. Transients occur in all wooded habitats especially where fruit- or berry-bearing trees or shrubs are available. Wintering birds prefer ornamental evergreens especially fruiting junipers.

Breeding Data: Birds establish territories from mid-March to early April; nest building (first brood) occurs in mid- and late April; first clutches are completed by the last week of April; first young are fledged by mid-May with major fledging by early June.

Specimens: 11 (5 M, 4 F, 2 I); also 1 at UK (27 March 1942).

Banded: 353.

Recoveries: Four birds were recaptured or found dead within Ellis County from 7½ months to 3 years after banding. Three others were recovered elsewhere as follows:

<i>Date Banded</i>	<i>Date Recovered</i>	<i>Place of Recovery</i>
6 October, 1967	11 April, 1970	Woodward, Oklahoma
24 October, 1967	15 November, 1969	Gibbons, Nebraska
26 October, 1967	25 July, 1968	Russell, Kansas

(**Wood Thrush—*Hylocichla mustelina***)

Wooster recorded this species from the FHKSC campus “in former years” and found a nest in two successive seasons (Imler, 1936:307). Wooster, *et al.* (notes) also refers to the Brown Thrasher as the “Brown Thrush” and apparently confused the two species.

Hermit Thrush—*Hylocichla guttata*

Probably a rare transient in wooded habitat. There are seven records of single birds: four in spring (29 April-3 May); three in fall (8-30 October). Most birds were along Big Creek near the FHKSC campus.

Specimens: 2 M. *Banded:* 1.

Swainson's Thrush—*Hylocichla ustulata*

Wooster, *et al.* (notes) recorded from 2 May-3 June.

Common spring transient from late April to early June; uncommon fall transient from early September to early October with an occasional late straggler. Extreme dates: 28 April-5 June; 4 September-30 October. Spring migration peaks have been in early or mid-May. Birds are most numerous in wooded vegetation along streams and in town parks; less common in yards in towns, wind-breaks, farmyards and more open areas. The single bird seen 30 October appeared at a bird feeder (MER).

Specimens: 11 (6 M, 4 F, 1 ?). *Banded*: 447.

Gray-cheeked Thrush—*Hylocichla minima*

Regular but low density spring transient during May. The species was apparently overlooked previous to mist-netting studies. Extreme dates: 4-25 May. Birds occur in shaded wooded areas especially along streams and in the Hays parks. No birds were reported in 1970.

Specimens: 4 F; 1 M, 1 F (CAE). *Banded*: 32.

Veery—*Hylocichla fuscescens*

Regular but low density transient during May and September. Veeries were apparently overlooked prior to mist-net studies. Extreme dates: 9-29 May and 17-25 September. They occur in shaded wooded areas especially along streams and in the Hays parks.

Specimens: 2 F. *Banded*: 15.

*** Eastern Bluebird—*Sialia sialis***

Allen (1872:134) "not uncommon" along the timbered streams (summer 1871). Cooke (1885:293) first at Ellis for 1884—19 March (Watson). Wooster, *et al.* (notes) recorded between 12 March and 18 October; wintered: 1928-29, 1940-41.

Uncommon transient and occasional summer resident from early March to October. Occasionally winters. Extreme dates: 2 March-28 October. Most frequently recorded during March and October. Recently bred in 1959, 1961 (?), 1968 and 1970. Recently wintered in 1958-59, 61-62, 69-70, and 70-71. Transients are generally seen on wires in semi-open areas; breeding has been noted at the Hays park and near Rohr-Jacobs Lake; wintering birds prefer fruit-bearing conifers, most notably junipers at the Fort Hays Experiment Station.

Breeding Data: Nesting has been reported between 15 March and 31 July.

Specimens: 1 F; also 1 at MCZ. **Banded:** 8.

Mountain Bluebird—*Sialia currucoides*

Cooke (1888:295) "a few during migration" at Ellis (Watson).
Snow (1876:128) 26 October 1875, taken at Ellis by Watson.
Imler (1936:307) recorded "almost every spring" by Wooster.
Wooster, *et al.* (notes) recorded between 27 February and 19 April.

Irregular transient and winter visitor. There are a few scattered recent records from 10-28 March and from 18 October-2 December. Birds occur singly or in small groups usually along roadsides or near area ponds.

Townsend's Solitaire—*Myadestes townsendi*

Imler (1936:307) one on 6 April 1927. Wooster, *et al.* (notes) recorded between 12 October and 16 April. Snow (1876:130-131) 27 October and 3 and 8 November 1875, Ellis, Watson.

Regular, low density transient and winter resident, usually from late October or early November through mid-April. Extreme dates: 30 September-15 April. Solitaires occur most frequently in fruit-bearing ornamentals. Wintering birds favor fruiting junipers in towns or windbreaks, particularly on the Fort Hays Experiment Station.

Specimens: 1 M; 1 M (CAE). **Banded:** 3.

Gnatcatchers and kinglets: Sylviidae

Kinglets are small, drab-colored and very active. The Ruby-crowned has a conspicuous eye ring and jerks its wings. The Golden-crowned has a conspicuous striped head, is more partial to conifers and predominates in late fall and winter. The rare gnatcatcher is gray above with a long tail which it flicks actively.

Blue-gray Gnatcatcher—*Poliophtila caerulea*

Imler (1936:307) "one record in spring migration." Wooster, *et al.* (notes) 16 April 1941 (two).

Apparently a casual transient with eight scattered spring records between 13 and 25 April and on 12 May. All birds (most were singles) were recorded in trees along streams or in Hays.

Golden-crowned Kinglet—*Regulus satrapa*

Wooster, *et al.* (notes) recorded between 9 November and 31 March. (See *R. calendula*.)

Uncommon but regular transient and winter resident usually from

late October to mid-March. Extreme dates: 11 October-18 March. In migration they occur in most wooded habitats but wintering birds are largely confined to ornamental conifers, especially in towns, the Fort Hays Experiment Station and the FHKSC campus.

Specimens: 7 (2 M, 5 F); 2 M, 2 F (CAE); 1 F (NOF).

Banded: 64.

Ruby-crowned Kinglet—*Regulus calendula*

Wooster, *et al.* (notes) late fall and winter records. (May be *R. satrapa*.)

Uncommon but regular transient, usually in April and May and from late September through October. Extreme dates: 26 March-21 May; 13 September-25 November. Most winter records probably refer to *R. satrapa* but a few were netted during the winters of 1969-70 and 1970-71. Ruby-crowns occur in all wooded habitats, especially along streams and in towns.

Specimens: 5 (3 M, 2 F). *Banded:* 96.

Pipits: Motacillidae

On the ground pipits resemble sparrows but are thin-billed, walk, and wag their tails continuously. In flight the call notes are distinctive. The Water Pipit occurs in freshly plowed fields and mud flats. Sprague's Pipit should be looked for in good grassland. It has a streaked back and yellow legs.

Water Pipit—*Anthus spinoletta*

Cooke (1888:263) first for 1884 at Ellis—2 May (Watson).

Common transient from late March or early April to early May and from late September to late October. Extreme dates: 20 March-7 May; 24 September-30 October. Pipits occur most commonly in stubble fields, plowed fields and on moist, bare areas around water.

Specimens: 2 M. *Banded:* None.

Sprague's Pipit—*Anthus spraguei*

Status uncertain. No recent records. Reported by Watson in November 1877 as "not rare in Ellis county—present every winter, and in company with shorelarks and longspurs" (Snow, 1877-1878:38). Watson (Cooke, 1888:264) thought it a summer resident.

Waxwings: Bombycillidae

Waxwings are unmistakable with their crests, black faces and yellow-tipped tails. Cedar Waxwings occur regularly; Bohemian Waxwings during some winters. Both species are gregarious and favor berry-bearing trees and

shrubs, often near houses. Immature birds have streaked breasts. Many are killed flying into picture windows.

Bohemian Waxwing—*Bombycilla garrulus*

Imler (1936:308) "25 December 1926, a flock of 15" on FHKSC campus. Not seen again that winter though *B. cedrorum* were "common."

Irregular winter visitant—recorded between 10 November and 16 March. Recently present as follows: 17 November-early February 1960-61 (min. of 12); 10 November-late February 1961-62 (min. of eight); 18 November-16 March 1966-67 (min. of eight); 19 November-10 March 1968-69 (min. of 13). They usually occur in fruit- or berry-bearing ornamentals, including junipers in towns, on the FHKSC campus and the Fort Hays Experiment Station. They usually occur in small flocks, either alone or with *B. cedrorum*.

Specimens: 2 M. *Banded:* None.

Cedar Waxwing—*Bombycilla cedrorum*

Imler (1936:308) "common" in Hays, winter 1926-27. Wooster, *et al.* (notes) recorded between 29 September and 8 June.

Common transient and uncommon winter resident usually from mid-September through late May. Extreme dates: 8 August-20 June. Most common in late winter and early spring. Waxwings occur in all wooded habitats especially those with fruit- or berry-bearing trees. They are most frequently observed in towns, and in junipers and other ornamentals.

Specimens: 12 (8 M, 3 F, 1?). *Banded:* 41.

Shrikes: Laniidae

Shrikes are recognized by their black masks and hooked beaks. They perch on exposed perches and when approached drop low to the ground and fly with very rapid wing beats. Most shrikes wintering in this area are Loggerhead Shrikes and field identifications should be made with caution during winter.

Northern Shrike—*Lanius excubitor*

Imler (1936:308) "not uncommon in Ellis County" (Wooster).
Wooster, *et al.* (notes) January-March 1933, "rare."

Probably a rare winter visitor. The two recent sight records (24 February 1961 (Ely, 1961a:21); 26 November-15 January 1966-67 CAE, MER) were single birds in open country with scattered trees and windbreaks. Also two specimens were netted on Big Creek on 27 October 1969 and 2 November 1970.

Specimens: 2 (1 M, 1 F). *Banded:* None.

° **Loggerhead Shrike**—*Lanius ludovicianus*

Wooster, *et al.* (notes) recorded between 23 March and 16 September.

Common transient and summer resident and occasional winter resident; usually present from late March through late September. Extreme dates: 15 March-17 October. Small numbers wintered during 1958-59, 60-61, 61-62, 68-69, 69-70. Most commonly observed along roadsides and in thickets and hedgerows.

Breeding Data: Birds are on territory and nest building begins in early April; eggs were observed from mid-April through early May; young were reported from mid-May through early July. Recently fledged young were reported from early June to mid-August.

Specimens: 4 (2 M, 1 F, 1 ?). *Banded:* 12.

Starlings: Sturnidae

A starling is easily recognized by its short, square tail and dark body. The yellow bill is distinctive in summer. Immature birds are brown with ventral streaking. Molting birds display an interesting pattern of black and brown. Late fall and winter birds have a spotted appearance which is lost by spring as the light feather edges are worn off. Starlings are very aggressive and often mob feeding stations during winter. They nest abundantly in tree holes throughout the area and frequently evict flickers from newly dug cavities.

° **European Starling**—*Sturnus vulgaris*

Wooster, *et al.* (notes) reported 1940-42; 1955.

Present all year. Abundant transient and summer resident. The number of wintering birds fluctuates widely from year to year. Nesting birds are abundant in wooded habitats wherever nest cavities are available and in towns and on farmsteads. Wintering flocks prefer towns, farmyards and feedlots. Large roosting congregations occur in Hays during the fall months. Starlings probably arrived in Ellis County in the late thirties. The first actual report is February 1940.

Breeding Data: Nest cavity hunting begins in late February or early March with egg laying by early April and some fledging by mid- or late May. Nesting continues through at least mid-June.

Specimens: 6 (5 M, 1 ?); 1 F (CAE). *Banded:* 34.

Returns: One banded 6 May 1969 was recaptured on 15 April 1970.

Vireos: Vireonidae

Vireos are plain, slow-moving birds that usually occur in thick foliage and

are most conspicuous when singing. They resemble the duller-colored warblers but are more sluggish and have heavier, slightly hooked bills.

(White-eyed Vireo—*Vireo griseus*)

Status uncertain. No recent records. Imler (1936:308) "seen once in spring in Ellis County."

*** Bell's Vireo—*Vireo belli***

Allen (1872:135) "common along Big Timber and doubtless more or less frequent along the better timbered portion of the other streams" (summer 1871).

Common transient and summer resident from mid-April to mid-September. Extreme dates: 14 April-22 September. Most regular from mid-May through August. Birds occur regularly in thickets, dense windbreaks and similar brushy areas. A few nest in shrubbery in Hays.

Breeding Data: A nest under construction in a Hays yard on 10 June 1966 was completed on 14 June; the clutch was completed 20 June and eggs had hatched by 5 July. An estimated six pairs nested in windbreaks on the College Farm during 1970. Abandoned nests are commonly found after leaf-fall.

Specimens: 5 (1 M, 3 F, 1 ?); 2 M, 4 F (CAE). *Banded:* 69.

Returns: Ten birds were recaptured from 10 months to 1 year 8 months after banding. One bird banded 16 September 1967 was recaptured on the same date (9 May) for the next three consecutive seasons.

Solitary Vireo—*Vireo solitarius*

Usually a rare transient in fall. Seven scattered records (26 August-11 November) from 1962 through 1969; then at least 21 birds from 12-25 September 1970. Eleven birds were netted on 16 and 17 September. There are no spring observations. Birds were recorded along Big Creek and on the Fort Hays Experiment Station.

Specimens: 3 (1 F, 2 ?). *Banded:* 21.

Red-eyed Vireo—*Vireo olivaceus*

Uncommon but regular transient from late April through May and during September. Probably a rare summer resident but confirmation is needed. Extreme dates: 21 April-5 June; 30 August-30 September. A singing male, apparently on territory, was seen 6 June 1968. They occur in wooded habitats especially along Big Creek and in Hays.

Specimens: 7 (3 M, 3 F, 1 ?). *Banded:* 59.

Philadelphia Vireo—*Vireo philadelphicus*

Probably a casual transient. The only record is a single bird netted in a young boxelder grove on Big Creek near the FHKSC campus on 22 September 1970.

Specimens: 1. *Banded:* None.

° **Warbling Vireo—*Vireo gilvus***

Allen (1872:135) "rather common in the timber on the 'Reservation' at Fort Hays, and along the Saline and Big Timber" (summer 1871). Wooster, *et al.* (notes) recorded between 31 April and 26 September.

Uncommon transient and summer resident from late April to early September. Extreme dates: 21 April-24 September. They are most common from mid-May through August. Birds occur in tall trees, especially in towns and along streams and are very inconspicuous except when singing.

Breeding Data: No nests were seen but adults feeding fledged young were reported between 29 June (newly fledged) and 2 August of various years.

Specimens: 1 at MCZ. *Banded:* 45.

Wood warblers: Parulidae

Warblers are small, active birds with slender, pointed bills. Most are brightly colored and distinctively patterned in spring but some are duller and indistinct in fall. In Ellis County warblers are transients usually seen in towns and along streams in mixed flocks. Warblers are sometimes abundant when low overcast and bad weather conditions force down migrating flocks.

Black-and-white Warbler—*Mniotilta varia*

Imler (1936:309) "Hays," 6 May 1927. Wooster, *et al.* (notes) reported between 27 April and 11 October; said to be a rare breeder. Falls (1933) pair on 11 June 1933; family on 5 July; flocks in spring and fall migration (?).

Regular, low density transient from mid-April to mid-May and during September. Extreme dates: 16 April-13 May; 25 August-24 September. Birds occur in wooded habitat along streams and in towns. It is unlikely that Wooster could have mistaken this species for any other local breeding species. However, there is no recent evidence of attempted breeding in Ellis County.

Specimens: 2 (1 M, 1 F). *Banded:* 7.

Prothonotary Warbler—*Protonotaria citrea*

Probably a casual transient. The only record is a male seen in Hays on 5 May 1970 (MER).

Worm-eating Warbler—*Helmitheros vermivorus*

Probably an occasional transient in wooded habitat. There are only two records: one netted in tall weeds and wooded vegetation along Big Creek on 16 April 1968; one sight record 5 September 1969 (MER).

Specimens: 1 F. *Banded:* None.

Golden-winged Warbler—*Vermivora chrysoptera*

Probably an occasional transient in wooded habitat. There are only two records: a singing male collected in Hays park on 10 May 1969 and a male netted on Big Creek on 17 September 1970.

Specimens: 2 M. *Banded:* None.

Tennessee Warbler—*Vermivora peregrina*

Wooster, *et al.* (notes) early records (at least in part) were confused with Orange-crowned Warblers and Red-eyed Vireos; reported in late April, 11 October and 6 November.

Regular, uncommon spring transient (May); rare fall transient (September). Extreme dates: 7-26 May; 13-29 September. In spring, birds may be very conspicuous for a brief period. They occur in wooded habitat, generally in tree tops. Sixty were banded during the period 20-21 May 1967.

Specimens: 8 (5 M, 3 F); 1 F (CAE). *Banded:* 74.

Orange-crowned Warbler—*Vermivora celata*

Common transient from late April to mid-May and from mid-September to mid-October. Extreme dates: 2 April-20 May; 12 September-26 October. Yellowish warblers recorded 6 November 1933 and 27 November 1960 were probably this species. Most numerous in early May and in late September and early October. This is often the most abundant warbler species in the area (208 were banded during 3-8 May 1967). They occur throughout all wooded habitats, in brushy areas along streams and in tall weed growth.

Specimens: 24 (9 M, 10 F, 5 ?); 2 M, 2 F (CAE); 1 at NOF.

Banded: 954.

Nashville Warbler—*Vermivora ruficapilla*

Regular, uncommon spring transient (May); more common during fall (September and October). Extreme dates: 17 April-20 May; 12 September-8 November. The peak spring movement is during early May; the fall peak during late September. They occur in all wooded habitats, in brushy areas along streams and in

tall weed growth. This species was the dominant warbler during the 1970 fall migration (144 banded 12-26 September).

Specimens: 5 (3 M, 2 F). *Banded:* 360.

Parula Warbler—*Parula americana*

Probably a rare transient. The four records were all in trees or saplings along Big Creek in or near Hays. Birds were seen or netted 28 April and 12 May 1967 (MER); 23 August 1969 (CAE); 22 April 1970 (CAE).

Specimens: 1 M. *Banded:* None.

Yellow Warbler—*Dendroica petechia*

Wooster, *et al.* (notes) recorded 8 April (probably *V. celata*), 6 May-7 June; said to "nest here" 1941.

Common transient from early May to early June and from late July to late September. Possibly an occasional summer resident, but there are no confirmed recent records. Extreme dates: 18 April-17 June; 23 July-26 September. Migration peaks are in mid- and late May and in late August and early September. Yellow Warblers occur in all wooded habitats, along brushy streamsides and in tall weed growth. Singing males are generally present in suitable nesting habitat (riparian growth and in towns) in early June but intensive search has failed to find any evidence of attempted breeding.

Specimens: 29 (11 M, 18 F); 2 M, 10 F (CAE). *Banded:* 315.

Magnolia Warbler—*Dendroica magnolia*

Probably a rare transient. The nine records, all involving single birds, are well-scattered and most were mist-netted birds along Big Creek. Five were seen in spring (20-26 May); three in fall (16 September-1 October); and one was a singing male on the Harold Kraus farm on 25 June 1968, (CAE and others).

Specimens: 2 (1 M, 1 F); 1 F (CAE). *Banded:* 3.

Black-throated Blue Warbler—*Dendroica caerulescens*

Probably a rare transient. Single immature males were netted in low trees along Big Creek on 8 October 1966 and 8 November 1970.

Specimens: 2 M. *Banded:* None.

Myrtle Warbler—*Dendroica coronata*

Wooster, *et al.* (notes) recorded "March" to 30 April and winter of 1927-28 (12 October-1 January).

Common transient from late March to early May and from late

September to late November. Occasionally a few birds over winter. Extreme dates: 10 March-16 May and 30 September-27 November. On 16 December 1962, two were seen in conifers at the Fort Hays Experiment Station (MER). Also reported 12 January 1969; 29 January and 18 February 1970. Most common during April and October. Status varies, may be fairly common one year (1967) and rarely seen the next (1968). Birds occur in all wooded habitats, usually in taller trees; late stragglers prefer conifers.

Specimens: 4 (1 M, 3 F); 1 F (CAE). *Banded:* 159.

Audubon Warbler—*Dendroica auduboni*

Probably a casual transient. There are scattered recent records from 14 April-15 May. Possibly overlooked in fall, with only one fall record, 18 October 1969 (MER). They occur in wooded vegetation, usually in tall trees, and often in flocks of Myrtle Warblers.

Specimens: 1 M. *Banded:* 2.

Townsend's Warbler—*Dendroica townsendi*

Casual visitor. The only record is a female netted in tall weeds under cottonwoods along Big Creek on 18 May 1967 (Ely, 1969b:28).

Specimens: 1 F. *Banded:* None.

Black-throated Green Warbler—*Dendroica virens*

Rare spring and fall transient from 6-24 May and 15-28 September. They occur in wooded habitat along creeks and in towns in mixed warbler flocks (Ely, 1961a:21).

Specimens: 1 M. *Banded:* 2.

Chestnut-sided Warbler—*Dendroica pensylvania*

Rare spring and fall transient. There are scattered records between 30 April and 17 May and between 16 September and 14 October. Most were singles seen in brushy vegetation along streams and in Hays parks.

Specimens: 3 (2 M, 1 F); 1 F (CAE). *Banded:* 1.

Bay-breasted Warbler—*Dendroica castanea*

Wooster, *et al.* (notes) one reported 20 May 1924.

Probably a very rare transient. Single males were seen on the FHKSC campus on 11 and 15 May 1961 (Ely, 1961a:21). The only fall record is one netted on Big Creek on 7 November 1970.

Specimens: 1 F. *Banded:* None.

Black-poll Warbler—*Dendroica striata*

Regular, uncommon spring transient during May (2-26) with the peak movement of short duration, usually 20-25 May. Rare fall transient: five birds netted on Big Creek between 12 and 23 September. They may be conspicuous and moderately common for brief periods during spring occurring in wooded habitat usually in tree tops (Ely, 1961a:21; 1970a:20-22). Thirty-eight were banded on 20 May 1967.

Specimens: 4 (1 M, 3 F); 1 M, 3 F (CAE). *Banded:* 49.

Prairie Warbler—*Dendroica discolor*

Probably a rare transient. The only record is one seen in tall trees along Big Creek near Hays on 30 April 1969 by Roger B. Clapp.

Palm Warbler—*Dendroica palmarum*

Wooster, *et al.* (notes) reported 6 May 1941.

Probably a rare transient. The only record is one netted in tall weeds and saplings on Big Creek on 3 May 1967 (MER).

Specimens: 1 M. *Banded:* None.

Ovenbird—*Seiurus aurocapillus*

Wooster, *et al.* (notes) recorded 8, 24 May.

Regular, low density transient from mid-April through May and from early August through late September. Extreme dates: 19 April-26 May; 2 August-23 September. Most sightings are in late May. They occur primarily in shrubby undergrowth under trees along Big Creek.

Specimens: 5 (1 M, 4 ?). *Banded:* 22.

Northern Waterthrush—*Seiurus noveboracensis*

Cooke (1888:256) to 25 May (1884) at Ellis (Watson).

Regular, low density spring transient during May; rare fall transient (two records in September). Extreme dates for confirmed records: 4-25 May; 13-15 September. They occur in low wooded vegetation along streams and in wet areas.

Specimens: 2 (1 M, 1 F). *Banded:* 17.

(Louisiana Waterthrush—*Seiurus motacilla*)

Status uncertain; possibly an occasional transient. There are two sight records (24 May 1963, 21 September 1969 along Big Creek, MER) but since all netted birds were *S. noveboracensis* the present species is considered hypothetical.

(Connecticut Warbler—*Oporornis agilis*)

Status uncertain; possibly an occasional transient. The one sight record (6 May 1967 in undergrowth along Big Creek, MER) was not confirmed.

Kentucky Warbler—*Oporornis formosus*

Probably a rare transient. The only record is a female netted on Big Creek on 17 May 1970.

Specimens: 1 F. *Banded*: None.

Mourning Warbler—*Oporornis philadelphia*

Apparently uncommon but regular spring and fall transient. There are confirmed records from 20-25 May and from 13 September-16 October; 12 were netted during September 1970. Birds occur in thick undergrowth and tall weeds along streams and are inconspicuous and seldom seen.

Specimens: 6 (5 M, 1 F). *Banded*: 16.

MacGillivray's Warbler—*Oporornis tolmiei*

Low density transient from early May to early June and during September. Extreme dates: 4 May-6 June; 14-30 September. Birds occur chiefly in thick undergrowth and tall weed growth along streams and in wet areas and are rarely seen except during netting operations.

Specimens: 6 (4 M, 2 F). *Banded*: 10.

Yellowthroat—*Geothlypis trichas*

Wooster, *et al.* (notes) recorded 5-16 May.

Common spring transient from late April or early May to mid-June; uncommon fall transient from mid-September to late October. Extreme dates: 25 April-13 June; 10 September-22 October. The spring migration peak is in May, but varies from year to year; the fall movement is sparse without a noticeable peak. Yellowthroats occur most frequently in undergrowth and tall weeds along streams and in wet or marshy areas; also in urban yards and gardens.

Specimens: 15 (10 M, 5 F); 1 M (CAE). *Banded*: 317.

Yellow-breasted Chat—*Icteria virens*

Allen (1872:135) "common" on Big Timber Creek, summer 1871;

Imler (1936:309) male "found dead" in Hays, 24 May 1935.

Regular, probably uncommon transient and summer resident from early May to late September. Extreme dates: 3 May-24 September and a straggler 12 October 1970. Nesting has not yet been documented but birds are present all summer. Chats are

very secretive, especially during summer and are usually overlooked except when singing. They are most frequently observed during May. Chats occur chiefly in thick woody undergrowth along streams.

Specimens: 3 (1 M, 1 F, 1 ?). *Banded:* 25.

Hooded Warbler—*Wilsonia citrina*

Probably a casual transient. The only record is a female netted on Big Creek on 14 May 1970.

Specimens: 1 F. *Banded:* None.

Wilson's Warbler—*Wilsonia pusilla*

Snow (1903:164) one collected near Ellis, 30 September 1875 (Watson). Wooster, *et al.* (notes) 6 May 1933 (rare).

Usually an uncommon transient from late April to late May and from late August to mid-October. Extreme dates: 23 April-24 May; 26 August-17 October. This species is much more common during fall migration than during spring. A very large movement was noted in September 1970 with 212 banded from 4-26th (92 from 13-15th). They occur in all wooded habitats and in undergrowth and tall weedy growth, especially along streams.

Specimens: 11 (6 M, 5 F). *Banded:* 332.

Canada Warbler—*Wilsonia canadensis*

Rare transient: two of the six sightings were in spring (18 April 1967, unconfirmed, DL, TRM, LWA; 25 May 1963, MER); the remaining four were between 8 and 16 September. All birds were seen in undergrowth along wooded streams.

Specimens: 1 M. *Banded:* 1.

American Redstart—*Setophaga ruticilla*

Wooster, *et al.* (notes) 7 May 1940.

Regular, low density spring transient from early May to late June; uncommon fall transient from late August to late September. Extreme dates: 8 May-12 June; 22 August-23 September. Redstarts are most common during late May. They occur in wooded habitat along streambanks and in towns.

Specimens: 5 M; 1 M, 1 F (CAE). *Banded:* 48.

Weaverbird: Ploceidae

The House or "English" Sparrow is an introduced weaver-finch, not a native sparrow. A few birds construct large, compact globular nests in trees but most use holes or crannies in protected locations.

* **House Sparrow**—*Passer domesticus*

Wooster, *et al.* (notes) reported 1932-33, 1941 and later.

Abundant permanent resident in towns and around farm buildings. A few nest in such feral situations as under bridges and in trees along roadsides. The date of first appearance of House Sparrows in Ellis County is not known but birds were not present in 1886 (Barrows, 1889, *vide* J. E. Wilson). They probably arrived soon after and were first reported in the literature in December 1924. One local roost was decimated by a hail storm in July 1968 (Ely and Bowman, 1969).

Breeding Data: Nesting begins by mid-March and continues through at least August. The first young fledge in late April with fledging peak during early May. Maximum numbers of juvenals are present in July and August.

Specimens: 8 (5 M, 3 F); also 37 at UK (21-22 October 1964).

Banded: 968.

Recaptures: 102 including 21 local recoveries (found dead, shot by locals, cat kills, etc.) recovered from 5 months to 2 years 7 months after banding. Seven of these were recovered 2 years or more after banding. Individual House Sparrows were recaptured at infrequent intervals—11 were recaptured twice—all but one over periods exceeding 1 year. Three birds handled more than 3 years after first banding were in excess of 4 years of age when last recaptured.

Blackbirds: Icteridae

Icterids are a variable assemblage including the ground-feeding blackbirds and meadowlarks and the arboreal orioles. Most local species have heavy pointed beaks and predominately metallic black or black and orange plumage.

Bobolink—*Dolichonyx oryzivorus*

Rare, but probably regular spring transient. A few males were seen in most years, usually in alfalfa fields near Hays, between 20 April and 21 May.

* **Western Meadowlark**—*Sturnella neglecta*

Allen (1872:138) eight specimens taken, single nest 30 May (summer 1871). Cooke (1888:167) first arrival at Ellis for 1884—10 March. Wooster, *et al.* (notes) reported various years.

Present all year. Common transient and summer resident. Winter populations are smaller but numbers vary widely from year to year. Meadowlarks occur in both grasslands and in cultivated fields.

Nesting birds prefer grassland while wintering birds congregate near farmyards, stored grain and in sheltered areas.

Breeding Data: Nests with fresh eggs were recorded from late April through early July but with an apparent nesting peak in early June. Young were recorded in mid-June with fledging noted in mid-August.

Specimens: 7 (6 M, 1 F); 1 J (CAE); also 8 at MCZ.

Banded: 19.

Yellow-headed Blackbird—*Xanthocephalus xanthocephalus*

Allen (1872:138) small flock at intervals, Fort Hays, summer 1871. Wooster, *et al.* (notes) recorded from 12 April to 10 May.

Regular uncommon transient from early April to late May and from mid-July to early October. Extreme dates: 1 April-24 September; with a few scattered summer sightings. Numbers vary from year to year. In 1968 they were most common in the central and southwest parts of the county. They occur in cultivated fields, around ponds, in barnyards and in hedgerows and are usually in small groups or in flocks of under 50 birds.

Specimens: 2 at UK (6 July 1895, Ellis). *Banded:* 1.

* **Redwing—*Agelaius phoeniceus***

Cooke (1888:164) first at Ellis for 1884 on 24 April (Watson). Wooster, *et al.* (notes) reported 4 March-14 November.

Common transient and summer resident from late March through August. Numbers during the remainder of the year fluctuate widely. In fall, large flocks feed in milo fields especially in irrigated areas in the southwestern part of the county and roosting flocks are usually present in Hays. Small numbers, at least, usually winter along the Smoky Hill River. Nesting birds occur along streams and ponds, in weedy draws and in wheat fields. Non-breeding birds are usually found in cultivated fields or trees along streams.

Breeding Data: The first males are on territory by mid- or late March. Females join them by mid-April and nest building starts soon thereafter. Eggs were recorded from early May to mid-June; the earliest fledging was 11 June but most fledging is in late June and early July.

Specimens: 8 (4 M, 3 F, 1 J). *Banded:* 279.

* **Orchard Oriole—*Icterus spurius***

Allen (1872:138) "abundant in the timber on the Reservation at Fort Hays;" full sets of fresh eggs each day between 6 and 10

June 1871. Wooster, *et al.* (notes) recorded between 19 April (usually about 6 May) and 24 September.

Uncommon transient and summer resident from early May to early August with stragglers to late September. Extreme dates: 2 May-30 September. Birds occur in all wooded habitats: wooded stream banks, towns, hedgerows, farmyards and isolated groves in grassland.

Breeding Data: Some nesting begins in early May (young on 26th) but the peak nesting period is later with eggs to early July and most hatching in late June. All are fledged by early August.

Specimens: 5 (2 M, 1 F, 2 I); 1 M (CAE); also 5 at MCZ.

Banded: 96:

Returns: An adult male banded 22 May 1968 was recaptured 20 June 1969. The dates strongly suggest breeding.

* **Baltimore Oriole**—*Icterus galbula*

Allen (1872:138) "common in the timber" (summer 1871).

Cooke (1888:171) recorded at Ellis, without date (Watson).

Wooster, *et al.* (notes) recorded between 18 April and 27 September.

Common transient and summer resident from late April to mid-August with stragglers to mid-September. Extreme dates: 27 April-19 September. A first year male remained at a Hays feeding station from 17 November-16 December before being killed by a cat (MER). In 1968 birds were most regular in the northern third of Ellis County. They occur in all wooded habitats: wooded stream banks, towns, hedgerows, farmyards and isolated groves in grasslands.

Breeding Data: Few nests were examined but most nesting is from late May through July with young heard in nests from 11 June through 6 August. An immature in post-juvenal molt was taken on 18 July.

Specimens: 14 (6 M, 5 F, 3 ♀); 4 M (CAE); also 6 at MCZ.

Banded: 118 including hybrids.

Recaptures: Six birds were recaptured at intervals of 9 months to 3 years after banding. An adult male banded on Big Creek at Hays on 15 May 1967 was recaptured on the Harold Kraus farm 11 miles to the southwest on 18 May 1968.

Bullock's Oriole—*Icterus bullocki*

Probably a casual visitor. The only record is a first year male netted on the Smoky Hill River on 19 May 1968.

Specimens: 1 M. *Banded:* None.

Rusty Blackbird—*Euphagus carolinus*

Snow (1903:162) 29 October 1875, one collected at Ellis (Watson).

Apparently a rare transient and winter resident. There are numerous scattered records between 6 December and 28 February, all near open water or in wet areas (Smoky Hill River, Rohr-Jacobs Lake, Big Creek).

Specimens: 1. *Banded:* None.

Brewer's Blackbird—*Euphagus cyanocephalus*

Cooke (1888:174) first for Ellis in 1884—5 April (Watson). Snow (1903:162) 18-25 September 1875, five collected at Ellis (Watson). Wooster, *et al.* (notes) Wooster's statement "common breeder" in 1933 is undoubtedly a misidentification; also reported: small flocks in May, large flocks in late fall.

Regular, uncommon transient and winter resident from mid-March to late April and from mid-October to mid-January. Extreme dates: 14 March-24 April; 14 October-11 January. Wintering birds usually occur near water (Big Creek, Smoky Hill River) or in farmyards; transient flocks more often occur in cultivated fields and windbreaks.

Specimens: 1 M. *Banded:* None.

*** Common Grackle—*Quiscalus quiscula***

Allen (1872:138) "abundant along Big Creek at Fort Hays." Nests with newly hatched young, 1, 8, June 1871; others with fresh eggs as late as 12 June 1871. Wooster, *et al.* (notes) recorded between 20 March and 18 October with stragglers on 14 and 19 November.

Common transient and summer resident from mid-March to mid-September with stragglers to early November. Extreme dates: 17 March-1 November. The only winter record is of one seen on 1 January 1968. Large roosting flocks build up in towns in fall. A migrating flock of 4-5000 was present on the College Farm 23 September 1970. Grackles nest primarily in towns, windbreaks and farmyards. Non-breeding birds disperse often to the vicinity of water.

Breeding Data: Lindsey (1964) observed 74 nests in a timber claim near Hays in 1963 and 1964. Grackles arrived in mid-April some three weeks after first arrival in Hays. Birds returned nightly to a communal roost on Big Creek near Hays until nesting was well underway. The first eggs were laid in mid- or late April with two laying peaks during 4-16 May and 3-16 June. Most hatching

was in June and all birds left the area after the last young fledged in mid-July.

Specimens: 8 (4 M, 3 F, 1 I); also 2 at MCZ. *Banded:* 121.

Recoveries: An adult female banded on the H. Kraus farm near Antonino on 4 July 1968, was found dead near Schoenchen 6 miles southeast on 26 September 1970.

° **Brown-headed Cowbird**—*Molothrus ater*

Allen (1872:138) "common in the timber"; and frequently on the plains 10-15 miles from nearest trees (summer 1871). Wooster, *et al.* (notes) recorded between 26 February and 17 November.

Common transient and summer resident from late March to mid-October or early November. Extreme dates: 20 March-1 November. A few flocks (up to 60 birds) wintered during 1967-68, 68-69, 70-71. Cowbirds occur in most habitats both wooded and open. Non-breeding birds are most common in cultivated areas in the southwest part of the county.

Breeding Data: Courtship occurs by late March and nest searching and first egg laying occurs by late April or early May. Most nestlings were recorded from late June to July; most have fledged by late July. Cowbird parasitism was documented for Eastern Phoebe, Horned Lark, Western Meadowlark, Red-wing, Orchard Oriole, Cardinal, Pine Siskin and Dickcissel.

Specimens: 5 (3 M, 1 F, 1 J); 1 F (CAE). *Banded:* 34.

Tanagers: Thraupidae

Tanagers should occur more frequently than our records indicate. Males are unmistakable; females and fall males are olive-green or yellow and have finer bills than do grosbeaks. Tanagers are usually birds of tree tops.

Scarlet Tanager—*Piranga olivacea*

Probably a rare transient. The four records are all from fall: 6 September 1968, one southwest of Hays, RKS (unconfirmed); 7 and 13 October 1970, adult winter male (W. Toalson); 7 September 1970, female netted on Big Creek.

Finches, sparrows, etc: Fringillidae

The fringillids comprise a large and varied group of small birds, generally having conical, seed-eating beaks. Grosbeaks have especially heavy beaks; the Pine Siskin a relatively thin, pointed one; crossbills laterally flattened and uniquely crossed mandibles. Sexual dimorphism in plumage occurs in grosbeaks, finches and buntings. Males of some such as the Cardinal are bright all year. In others, the feathers of the winter plumage are veiled by dull edges which gradually wear away to produce the brilliant breeding plum-

age. Others such as the goldfinch have distinct and contrasting breeding and non-breeding plumages.

Ellis County has a relatively low number of breeding fringillid species; most are transients or short term visitors. A very interesting breeding population of Pine Siskins is present. A variety of species are abundant during migration usually in weedy or riparian habitats. In winter the area is noted for large populations of longspurs in stubble fields and open country. Sparrows, including juncos, are abundant in hedgerows and along streams. Northern finches occur at irregular intervals. Crossbills are usually present in ornamental conifers and grosbeaks and finches prefer fruit-bearing ornamentals in towns.

The brightly-colored finches and grosbeaks are easily recognized but the duller-colored sparrows cause considerable difficulty for the inexperienced birder. The seasonal status of sparrows given in the following accounts are based on recent observations and supported by the almost daily mist-netting of favorable sparrow habitat.

* **Cardinal**—*Richmondia cardinalis*

Cooke (1888:215) "rare" at Ellis (Watson). Wooster, *et al.* (notes) scattered records 1927-1955.

Low density permanent resident in towns, around farmsteads, and in wooded habitat along streams.

Breeding Data: Nest building begins in late March or early April; both eggs and young were reported for late April.

Specimens: 1 M. *Banded:* 28.

Returns: Two birds returned at intervals of 6 months and 2 years 7 months, respectively. Both are presumed to be permanent residents.

Rose-breasted Grosbeak—*Pheucticus ludovicianus*

Imler (1936:310) 3 May 1927, "another was seen at Hays."

Probably an uncommon transient. The scattered recent records are between 30 April and 25 June and from 30 August to 16 October. Some birds were hybrids, notably a male seen 17 May 1962. Birds occur in wooded habitat in towns and along streams usually singly.

Specimens: 2 (1 F, 1 ?); 1 M (CAE). *Banded:* 11.

* **Black-headed Grosbeak**—*Pheucticus melanocephalus*

Allen (1872:137) several pairs seen along Big Creek near Fort Hays. Nest with half grown young 11 June 1871; same pair had nest with eggs about 27 June. Wooster, *et al.* (notes) recorded between 26 April (usually early May) and 14 September.

Uncommon transient and irregular summer resident from early or mid-May through early September. Extreme dates: 17 April-8 September. Apparently a more common breeder during the 1920's

and 1930's than at present. No birds were reported in Hays during the summers of 1968 and 1969 and only a few were seen during 1970 (no evidence of nesting). They occur in wooded habitat chiefly in towns and along wooded streams and are inconspicuous when not singing.

Breeding Data: The few nests reported recently had nestlings during mid- and late July. In previous years nesting began in early May and young fledged from mid-June to early July.

Specimens: 1 I; also 2 at MCZ. *Banded:* 17.

° **Blue Grosbeak**—*Guiraca caerulea*

Snow (1903:163) 17-26 May and 3 August 1875; five collected at Ellis (Watson). Cooke (1888:218) first for 1884 at Ellis—13 May (Watson). Wooster, *et al.* (notes) recorded between 13 May and 3 August.

Uncommon transient and summer resident from early May through mid-October. Extreme dates: 5 May-14 October. Most records are from mid-May to early September. Birds occur in undergrowth along streams and in thickets in open areas especially in small wooded ravines.

Breeding Data: Although birds are present on territory throughout the summer no nests were actually observed.

Specimens: 4 (3 M, 1 F); also 1 at UK (Ellis, June 1885).

Banded: 32.

Recoveries: An adult male banded 9 May 1968 was killed in a net by a predator on 11 June 1970.

° **Indigo Bunting**—*Passerina cyanea*

Uncommon transient and rare summer resident from early May to September and with stragglers to mid-October. Extremes dates: 7 May-17 October. They are most commonly observed during May and October. Transients occur primarily in undergrowth along streams; breeding birds have been reported from Big Creek and the Smoky Hill and Saline Rivers.

Breeding Data: No nests were reported but singing males on territory are regularly reported and a female with a recently fledged juvenal were collected on 11 August 1967.

Specimens: 8 (2 M, 6 F). *Banded:* 13.

Returns: A male banded 19 May 1967 was collected at the Fort Hays Experiment Station on 16 August 1967.

Lazuli Bunting—*Passerina amoena*

Cooke (1888:219) "rare summer resident at Ellis" (about 1884?) (Watson).

Apparently now a rare spring transient during May. There are scattered recent records between 5 and 23 May but no recent evidence of nesting. They are usually observed in undergrowth and trees along streams and on the FHKSC campus.

Specimens: 4 (2 M, 2 F); 1 M, 1 F (CAE). *Banded*: 5.

*** Dickcissel—*Spiza americana***

Allen (1872:137) "abundant on Big Timber Creek, and some were seen along the Saline" (summer 1871). Imler (1936:310) 26 June 1935, seven seen in a one-mile drive near Hays were the first Wooster had seen on this regular drive in two years. Wooster, *et al.* (notes) reported from 6 May to 26 June. Wooster (1935:351-352) scarce during summer 1933; one pair summer 1934.

Common transient and uncommon to common summer resident from early or mid-May (usually) through mid-August with stragglers through mid-October. Extreme dates: 4 May-13 October. Numbers fluctuate and Dickcissels were more common in the summer of 1969 than any summer during the last 10 years. They occur most commonly in alfalfa fields but when very common disperse into wheat fields, weed patches and similar habitats, including the undergrowth along Big Creek. Molting adult birds netted in early August 1970 were incapable of sustained flight.

Breeding Data: Actual nesting data are few but nests with eggs were reported on 29 May and 23 June and fledglings were reported on 6 August.

Specimens: 5 (3 M, 1 F, 1 I); 1 M (NOF); 2 M, 1 F (CAE).

Banded: 38.

Evening Grosbeak—*Hesperiphona vespertina*

Snow (1876:131) abundant at Ellis in November 1875, five specimens (Watson). Wooster, *et al.* (notes) reported 27 October 1928.

Irregular winter visitant recorded between 27 October and 10 (or 12?) May. Recently recorded in Hays as follows: 27 October-31 March 1960-61; 3 November-10 May 1961-62; 30 October 1963; 13 March 1964; 25 October 1965; 7 November-12(?) May 1966-67; 24 November-26 December 1970. Birds usually occurred in small flocks but up to 40 birds were occasionally reported. Birds were not as dependent on feeding stations as at many eastern localities.

They occur chiefly in towns (at feeding stations and ornamental plantings) and on the grounds of the Fort Hays Experiment Station and FHKSC.

Specimens: 3 (1 M, 2 F). *Banded:* None.

Cassin's Finch—*Carpodacus cassinii*

Casual visitor. Flocks of up to 19 were observed at Hays from 27 December to 28 April 1960-61. Birds were most often seen in trees near Big Creek and on the FHKSC campus (Ely, 1961b:418).

Specimens: 4 (3 M, 1 F). *Banded:* None.

Purple Finch—*Carpodacus purpureus*

Wooster, *et al.* (notes) winter 1954-55 "first seen here."

Uncommon transient and rare winter resident from late October to late May with stragglers to late April and possibly late May. Extreme dates: 29 October-25 April and 24 May (?). They were regularly observed during the winter of 1968-69. Transient birds occur in all wooded habitats and in tall weed growth; wintering birds spend more time in windbreaks and ornamental evergreens.

Specimens: 4 (3 M, 1 F); 2 M, 4 F (CAE), 3 F (NOF).

Banded: 25.

House Finch—*Carpodacus mexicanus*

Irregular winter visitor between 22 October and 18 April. Recorded as follows: 9 December 1961; 31 December 1962; 29 October-18 April 1966-67; 5 November-29 March 1967-68; 25 October-30 March 1968-69; 22 October-15 April 1969-70; 7 November-late December 1970-71. They are usually observed in small flocks on Big Creek at the Fort Hays Experiment Station and FHKSC or in Hays.

Specimens: 2 M; 1 M, 1 F (CAE). *Banded:* 57.

Pine Grosbeak—*Pinicola enucleator*

Casual winter visitor. Flocks of up to six birds were observed in ornamental evergreens on the FHKSC campus between 17 November and 8 February 1960-61 (Ely, 1961a:21). A minimum of ten birds was involved. From one to three birds were seen at intervals between 7 November and 27 March 1969-70 in north Hays (MER). Birds were most frequently seen in ornamental evergreens or feeding in or under fruit trees.

Specimens: 4 (1 M, 3 F); 1 at UK. *Banded:* None.

Common Redpoll—*Acanthis flammea*

Irregular winter visitor from late November through February. A flock of seven was seen in ornamental pines in the Hays Cemetery on 1 January 1962. All other sightings have been at the Fort Hays Experiment Station or with flocks of *Spinus* along Big Creek. There were scattered sightings between 5 December and 18 February 1968-69 (minimum number seen, ten) and between 25 November and 21 February 1969-70 (minimum of 16).

Specimens: 2 (1 M, 1 F); 2 M (CAE). *Banded* 3.

° Pine Siskin—*Spinus pinus*

Allen (1872:135) frequently heard species with restless habits and notes of *S. pinus* (he considered it more likely to be *S. psaltria*) (summer 1871). Imler (1936:311) spring 1927, nest completed in Ellis County but no eggs laid. Wooster, *et al.* (notes) reported "winter" to 7 May; nesting attempted 1928, 1933, 1939.

Regular, uncommon transient and summer resident; uncommon winter resident. Nesting birds are present from early March through the nesting period—to early June if nesting is successful. Birds seem to leave the area completely after nesting and are not observed again until the fall migration in late September or early October. If nesting is unsuccessful (as in 1968 and 1969) birds may leave the area by mid-May. Small numbers winter, often with goldfinches in the tall weeds and undergrowth along streams. Nesting birds prefer ornamental conifers but have nested in the new thick growth of pruned elms. Most nesting was in Hays, at FHKSC and at the Fort Hays Experiment Station (Ely, 1961a:22).

Breeding Data: Singing on territory begins as early as late January if the weather is warm and sunny. Nest building begins in late March with late nests to 21 April. Most clutches were completed by mid-April. Young were reported from mid-April to late May. Fledging was observed between 28 April and 8 June.

Specimens: 7 (4 M, 3 J); 1 M, 2 F (CAE). *Banded*: 183.

American Goldfinch—*Spinus tristis*

Wooster, *et al.* (notes) reported as a "rare breeder" in 1933 and a "year round resident" in 1941.

Now a common, occasionally abundant transient and probable summer resident, from late September through May. They are occasionally recorded during the summer months especially along the Saline River and probably nest there, however, evidence is lacking. Two nests were reported in 1933, but the dates (eggs on 29 and 31 May) suggest an error in identification. Spring transients

are often abundant in trees in town and along streams especially when the trees are budding or flowering (especially elms). Wintering birds and fall transients are most common in tall weeds along streams and in fields (especially sunflowers).

Specimens: 13 (6 M, 7 F); 4 M, 2 F (CAE); 1 M, 2 F (NOF).

Banded: 785.

Returns: Six birds (all banded in fall) were recaptured at intervals of 4 months to 1 year 11 months.

Red Crossbill—*Loxia curvirostra*

Irregular transient and winter visitor with scattered records between 20 October and 2 June. Recorded as follows: 27 December 1955; 28 December 1959; 20 October-2 June 1960-61; 18 November-31 December 1962; 30 December-10 February 1963-64; 4 November-12 January 1966-67; 6 December 1968; 25 August-22 May 1969-70. They are usually found in ornamental conifers in towns, on the FHKSC campus or at the Fort Hays Experiment Station. In spring, however, birds feed heavily on elm seeds.

Specimens: 8 (7 M, 1 F); 1 M, 1 F (CAE). *Banded:* None.

White-winged Crossbill—*Loxia leucoptera*

Vagrant. Snow (1903-1904:263) reported a young male taken at Hays City, 15 September 1902 by C. W. Miller (then in Miller's collection).

Rufous-sided Towhee—*Pipilo erythrophthalmus*

Wooster, *et al.* (notes) recorded between 17 April and 14 May and between 3 September and 19 November; wintered 1946-47. Snow (1876:132) Ellis, first for 1884—27 April (Watson).

Uncommon transient from mid-April to late May and from late September to mid-October. Extreme dates: 16 April-20 May; 25 September-19 October. A few birds wintered during most winters since 1957-58. They occur primarily in undergrowth along streams but during migration also occur in towns, farmyards and windbreaks.

Specimens: 6 (4 M, 1 F, 1 ?). *Banded:* 102.

*** Lark Bunting—*Calamospiza melanocorys***

Allen (1872:136) "common here and there on the plains, living apparently in scattered colonies." Females obtained between 5 and 10 June 1871 had evidently commenced incubation but no nests were found. Imler (1936:311) 24 June 1935, two nests with fresh eggs, "Ellis County." Wooster, *et al.* (notes) recorded between 20 April and 24 June.

Uncommon to common transient and summer resident from late

April or early May to late August with stragglers to mid-September. Extreme dates: 30 April-13 September. Present status variable. In most summers uncommon, occurring primarily in the western part of county. The breeding range may shift eastward during dry summers but 1969 did not follow this pattern. In 1969 (a wet spring) birds were widespread and common to abundant throughout the area. Census routes in the southwest part of the county showed a ten fold increase over the previous two years. Birds occur in all grassland habitats and in alfalfa and wheat fields.

Breeding Data: Nesting begins in late May or early June and some young are fledged by early July. Post breeding flocks form by late July or early August.

Specimens: 6 (2 M, 1 F, 3 I); 1 M, 1 F (CAE); 9 at MCZ.

Banded: None.

Savannah Sparrow—*Passerculus sandwichensis*

Cooke (1888:189) "Watson thinks that in former years he found it nesting at Ellis." Wooster, *et al.* (notes) recorded between 21 March and 10 May.

Apparently a rare but uncommon transient from late March to late May and from mid-September to mid-October. Extreme dates: 22 March-26 May; 21 September-22 October. They occur in grassland habitat, especially fence rows, edges of cultivated fields, cultivated fields and in much smaller numbers in weedy growth along streams.

Specimens: 6 (3 M, 3 F). *Banded:* 29.

*** Grasshopper Sparrow—*Ammodramus savannarum***

Allen (1872:136) "abundant everywhere on the plains"; several nests with fresh eggs between 3 and 10 June 1871. Wooster, *et al.* (notes) recorded between 8 April (usually 21st) and 29 September.

Common transient and summer resident from mid-April to mid-October with stragglers to early November. Extreme dates: 16 April-3 November. Birds are most numerous from early May to mid-August; generally inconspicuous except when singing. They occur in all grassland habitats, especially in native prairie and rangeland in the northern and eastern parts of the county. Transients also occur in cultivated fields and in weedy growth along streams.

Breeding Data: Few nests were observed but both eggs and young were reported in late July. Breeding must begin by mid-May

since fledged young were reported by early July. A nest with small young was reported 19 August.

Specimens: 8 (3 M, 5 F); 1 M (CAE); 1 at MCZ; 1 at UK (Ellis, 13 July 1885).

Banded: 9.

Vesper Sparrow—*Pooecetes gramineus*

Wooster, *et al.* (notes) recorded between 10 April and 17 May.

Common transient from late March or early April to early May and from mid-September to late October. Extreme dates: 27 March-8 May; 14 September-28 October. Published winter records (Christmas counts) are almost certainly in error. Birds occur chiefly along roadsides and in fallow fields such as wheat stubble. Smaller numbers occur in cultivated fields, short grass areas and in weedy growth along streams and hedgerows.

Specimens: 4 (2 M, 1 F, 1 ?). *Banded:* 46.

Recoveries: One banded on Big Creek 30 October 1966 was recovered at Steinbeck, Manitoba, 10 June 1967.

*** Lark Sparrow—*Chondestes grammacus***

Allen (1872:137) "common. Most numerous in the moist ravines and near streams"; generally commenced laying about 5 June (also fresh eggs, 3 June; half-grown young 5 June 1871). Imler (1936:311) "several nests" in evergreens on FHKSC campus. Wooster, *et al.* (notes) recorded from 2 April to 5 August; nest with young in base of Swainson Hawk nest, 31 May 1941.

Uncommon transient and summer resident from early or late April to at least early September. Fall departure dates unknown. Extreme dates: 10 April-8 September. Transients occur chiefly along roadsides, in cultivated fields and in low vegetation near streams. Breeding birds are more common in grassland with scattered trees (*e. g.*, in ravines) and in the sparse tree ecotone between grassland and riparian communities. They are most common in the bluff areas in the northwest part of the county. Published winter records are probably erroneous.

Breeding Data: Nesting begins in early May with eggs to at least late June. The earliest observed fledging was 25 May with most fledging in mid- or late July.

Specimens: 3 (1 M, 1 F, 1 J); 15 at MCZ. *Banded:* 83.

Cassin's Sparrow—*Aimophila cassini*

Allen (1872:137) "rather common along the streams" (summer 1871).

Present status uncertain. Probably occurs locally in sparse grass habitat among bluff outcrops near Saline River, but positive evidence is lacking. Two recent records: one was found freshly dead in downtown Hays on 29 April 1962; a second was netted on Big Creek on 8 May 1970.

Specimens: 2 (1 M, 1 F); also 1 at MCZ. *Banded*: None.

Slate-colored Junco—*Junco hyemalis*

Wooster, *et al.* (notes) recorded between 11 October and 26 April with stragglers to 29 May.

Common transient and uncommon winter resident from late September or (usually) early October to late March with stragglers to late April. Extreme dates: 28 September-28 April. Many birds appear to be intergrades with *J. oreganus* and many sight records are therefore questionable. Juncos occur primarily in brushy areas along streams and in windbreaks. They also occur in towns and farmyards and rarely in weedy fields away from brush or trees. The two juncos commonly occur in mixed flocks with various wintering sparrows.

Specimens: 6 (3 M, 3 F); also 7 of questionable identity.

Banded: 353.

Returns: Thirty-one juncos (both species) were recaptured after intervals of 3 to 13 months. Twenty-six were banded in fall or early winter (25 October-20 December) and recaptured later that winter or early spring; five returned following the next breeding season.

White-winged Junco—*Junco aikeni*

Probably a casual winter visitant. Watson (Snow, 1876:132) took one at Ellis, 8 November 1875. Goss (1886:43) reported that Watson saw the species on several later occasions. Cooke (1888:203) stated that Watson again found it at Ellis during the winter of 1883-84, and considered it a "summer resident." There are two recent records on Big Creek at Hays: one netted on 2 November 1969; one seen 1 November 1970 (CAE).

Specimens: 1 M. *Banded*: None.

Oregon Junco—*Junco oreganus*

Wooster, *et al.* (notes) recorded between 21 December and 30 April.

Common transient and summer resident, usually from early October to late March, with stragglers to late April. Extreme dates: 13 September-21 April. Many birds appear to be intergrades with

J. hyemalis and many sight records are therefore questionable. Juncos occur primarily in brushy areas along streams and in windbreaks. They are also present in towns and farmyards and rarely in weedy fields away from bushes or trees.

Specimens: 9 (3 M, 5 F, 1 ?); 1 M, 1 F (NOF).

Banded: 410.

Recoveries: One banded 16 December 1968 was recovered on 23 February 1969 at Plainville, Kansas some 25 miles north of Hays. This probably represents a local winter movement. Another banded on 30 December 1967 was recaptured here on 6 January 1968 and killed by a cat in Denver, Colorado on 4 November 1969.

Tree Sparrow—*Spizella arborea*

Goss (1885:77-80) January 1886, specimen from Ellis at MCZ.

Wooster, *et al.* (notes) recorded between 22 October and 24 March or "April."

Common transient and winter resident from mid- or (usually) late October to late March with stragglers to late April. Extreme dates: 13 October-29 April. Tree Sparrows are abundant in weedy draws, weedgrown cultivated fields and in undergrowth along streams. They are less common in towns and farmyards and in windbreaks.

Specimens: 21 (7 M, 10 F, 4 ?); 2 M, 1 F (NOF); 2 M, 2 F (CAE).

Banded: 2145.

Returns: A total of 107 birds was recaptured locally. Of these, 22 (11 percent) were last recaptured from 2 years to 4 years 1 month after banding. Three other birds were recovered on the northward migration as follows:

<i>Date Banded</i>	<i>Date Recovered</i>	<i>Place of Recovery</i>
3 February, 1967	28 March, 1967	Broken Bow, Nebraska
21 March, 1967	4 April, 1967	Dickinson, North Dakota
18 November, 1967	11 May, 1968	Watino, Alberta

Chipping Sparrow—*Spizella passerina*

Wooster, *et al.* (notes) recorded from 4-17 May; also on Christmas counts.

Common transient (abundant for brief periods) from early April through late May or early June and from late July or early August to late October or early November. Extreme dates: 6 April-2 June; 28 July-3 November. Recent migration peaks were in mid-May and mid-October. They occur primarily in vegetation along streams, in

windbreaks and in fields adjoining wooded habitat; also in towns and farmyards. Chipping Sparrows occur both in flocks with *S. pallida* and in pure flocks. The published winter records are almost certainly erroneous (probably Tree Sparrows).

Specimens: 10 (6 M, 3 F, 1 ?). *Banded*: 1437.

Clay-colored Sparrow—*Spizella pallida*

Cooke (1888:201) 13 May 1884 "abundant" at Ellis (Watson).
Wooster, *et al.* (notes) reported 6-17 May with a peak during 6-11 May.

Abundant spring transient and uncommon fall transient usually from mid-April to late May or early June and from mid-September through early October. Extreme dates: 24 March-5 June; 5 September-11 November. Clay-colored Sparrows are much more common in spring than in fall. They occur both with flocks of *S. passerina* and in pure flocks. Recent migration peaks have been in early and mid-May. Birds occur primarily in vegetation along streams, in windbreaks and in fields adjoining wooded habitat but also in towns and farmyards.

Specimens: 11 (10 M, 1 F). *Banded*: 1366.

Brewer's Sparrow—*Spizella breweri*

Probably a casual transient. There are five recent records. Single birds were netted (and handled) near Big Creek on 5 and 10 May 1968 and 7 November 1970. A singing bird was seen and heard on 9 and 11 May 1969. This species should be looked for in flocks of *S. pallida* but sight records of non-singing birds are of doubtful validity.

Specimens: 2 F. *Banded*: 1.

Field Sparrow—*Spizella pusilla*

Wooster, *et al.* (notes) recorded between 20 April and 18 November.

Uncommon transient from late March or early April to mid-May and from late September to mid-November. Extreme dates: 28 March-20 May; 26 September-18 November. There are at least two valid winter records (3 December 1967; 3-11 February 1969) but most Christmas count records are probably erroneous. Birds occur chiefly in fields adjoining wooded habitats and in windbreaks.

Specimens: 5 (2 M, 3 F). *Banded*: 182.

Returns: A bird banded on 20 October 1968 and recaptured on five occasions through 9 April 1969 is one of our few confirmed winter records.

Harris' Sparrow—*Zonotrichia querula*

Cooke (1888:193-194) recorded from Ellis (Watson). Wooster, *et al.* (notes) recorded from 15 November to 12 April and on 5 May.

Common transient and winter resident from early or mid-October to late April and with stragglers to late May. Extreme dates: 5 October-26 May. They occur primarily in undergrowth along streams and in windbreaks. Smaller numbers occur in weedy draws, towns and farmyards.

Specimens: 50 (22 M, 28 F, including experimental birds); also 2 at UK (27 March 1942).

Banded: 598.

Returns: Sixty-eight including three local recoveries. Most birds were recaptured during the season of banding but 15 were recaptured from 2 to 4 years after banding and one was last handled 5 years 2 months after banding. This bird was fully adult when banded and must have been at least 6½ years (probably over 7½) of age when last seen. Our data suggest that both transient and wintering populations are involved. One banded by M. V. Walker on 23 November 1929 was killed in Stoneburg, Texas on 1 December 1930.

White-crowned Sparrow—*Zonotrichia leucophrys*

Wooster, *et al.* (notes) recorded between 22 October and 6 May.

Common transient and winter resident from late September through mid-May with stragglers to late May. Extreme dates: 24 September-25 May. Wintering birds occur primarily in undergrowth along streams, in windbreaks and in farmyards. Smaller numbers occur in weedy draws and in towns. Transient birds occur more commonly in towns and in taller trees along Big Creek. Numbers fluctuate especially in winter. The 1970 migration was smaller than others observed in recent years.

Specimens: 12 (8 M, 4 F). *Banded*: 499.

Returns: Six birds were recaptured from 4 months to 2 years (two birds) after banding.

White-throated Sparrow—*Zonotrichia albicollis*

Imler (1936:312) 25 April 1928 (one) and 27 April 1928 (three). Wooster, *et al.* (notes) recorded between 27 December and 27 April.

Uncommon transient from mid-April to early May and from late September through mid-November. Extreme dates: 15 April-8

May; 22 September-20 November. White-throats are more common in fall than in spring. They occur in vegetation along streams and in towns. A few birds occasionally winter, as in 1969-70, on the Smoky Hill River.

Specimens: 4 (3 M, 1 F). *Banded:* 44.

Fox Sparrow—*Passerella iliaca*

Wooster, *et al.* (notes) recorded between 20 October and 29 March, chiefly on Christmas counts.

Apparently a rare transient and occasional winter resident in vegetation along streams. There are scattered recent records from 11 October through 2 May, most of them during fall. Most winter sight records are questionable and probably erroneous.

Specimens: 3 (2 F, 1 ?) *Banded:* 4.

Lincoln Sparrow—*Melospiza lincolni*

Wooster, *et al.* (notes) reported 30 April, 1 May 1941.

Common transient from late March or mid-April to mid-May with stragglers to early June and from mid- or late September to early November. Extreme dates: 28 March-9 June; 14 September-2 November. Recent migration peaks have been in early May and in early October. They occur primarily in thick vegetation near water and in smaller numbers in drier habitats such as windbreaks, towns and farmyards.

Specimens: 15 (6 M, 8 F, 1 ?). *Banded:* 518.

Swamp Sparrow—*Melospiza georgiana*

Apparently a rare transient and probable winter resident in vegetation near water. One bird was seen on 4 May; other single birds were reported at scattered intervals between 17 October and 25 December.

Specimens: 3 F. *Banded:* 6.

Song Sparrow—*Melospiza melodia*

Cooke (1888:209) "common summer resident" at Ellis (Watson).
Wooster, *et al.* (notes) recorded between 20 November and 7 April.

Common transient and uncommon winter resident from mid- or late September to mid-April with stragglers to mid-May. Extreme dates: 16 September-21 May. Birds occur primarily in vegetation along streams and in smaller numbers in windbreaks, towns and farmyards. Relatively few Song Sparrows were seen during the

1970 migration seasons. No recent evidence of breeding has been noted.

Specimens: 11 (9 M, 2 F); 1 M (CAE); 1 at UK (27 March 1942).

Banded: 393.

Returns: Twenty-seven birds were recaptured from 4 months to 2 years (two birds) after banding.

McCown Longspur—*Rhynchophanes mccownii*

Present status uncertain. There are no recent records but in 1884 Watson (Cooke, 1888:187) "found it to be a winter visitant and abundant in migration." At least 15 specimens were taken at Ellis between February and April 1885.

Specimens: 14 at UK; 1 at PU; 9 at MCZ (Ellis, 1883-1885).

Banded: None

*** Chestnut-collared Longspur—*Calcarius ornatus***

Allen (1872:135-136) common on plains almost everywhere. 30 specimens and three sets of eggs taken; fresh eggs about 3 June 1871.

Apparently now a regular but uncommon transient. The scattered records are all from early February through mid-April. Birds are observed both in grasslands and in cultivated fields. They occur more often in tall grass habitat than do *C. lapponicus*. In late spring they are usually seen near farm ponds in pastures.

Specimens: 1 M; 30 at MCZ; 4 at UK (April 1885, Ellis).

Banded: None.

Lapland Longspur—*Calcarius lapponicus*

Wooster, *et al.* (notes) recorded during "fall" and between 9 December and 2 April.

Abundant transient and winter resident from at least mid-November to mid-April. Extreme dates: 14 November-15 April. The species composition of most longspur flocks have not been determined. However, this is the most abundant species during the winter months especially in irrigated milo fields in the southwest part of the county. Numbers vary considerably during different winters and in 1968-69 numbers were much lower than during the two previous winters. They occur primarily in stubble and wheat fields with smaller numbers in grassland habitats. Flocks concentrate along roads during periods of deep snow.

Specimens: 14 (10 M, 3 F, 1 ?); 2 M (CAE); 2 M, 2 F (NOF);
22 at UK (21, fall 1885, Ellis; 1, 1 February 1927); 6 at MCZ
(Ellis, 1885).

Banded: None.

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