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IN THIS ISSUE

BALD EAGLE RESTORATION EFFORTS AT LBL, Richard L. Lowe	71
ANALYSIS OF A KENTUCKY BLACK-STARLING ROOST POPULATION FROM BIRDS KILLED BY PA-14 TREATMENT, Blaine Ferrell, etal	72
THE NESTING SEASON, SUMMER 1980, Anne L. Stamm	78
FIFTY-SEVENTH ANNUAL FALL MEETING, H. E. Shadowen	83
FIELD NOTES	88
INDEX, THE KENTUCKY WARBLER, 1977-1980, H. E. Shadowen	89

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THE KENTUCKY WARBLER

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OUR COVER

The photograph of the young Bald Eagle (*Haliaeetus leucocephalus*) was provided by the Tennessee Valley Authority.

BALD EAGLE RESTORATION EFFORTS AT LBL

Two young Bald Eagles (*Haliaeetus leucocephalus*) were brought to Land Between the Lakes (LBL) from Wisconsin on June 28, 1980 in a joint TVA and Tennessee Wildlife Resources Agency (TWRA) relocation venture. The Wisconsin Department of Natural Resources made the birds available. The overall project objective is to restore eagle nesting to the western Tennessee and Kentucky area.

The birds were placed on a nesting platform atop a 40-foot tower where a protective cage prevented them from leaving the nest prematurely and guarded them against predators. They were continually monitored from a nearby observation platform which was screened to prevent the eagles from seeing their human observers.

A variety of foods, including fish and small mammals, was made available to the birds by means of a delivery system that operated on a cable-trolley system. The system was designed so that the eagles could not see the hands that fed them. Daily food consumption averaged about one and one-half pounds per bird but reached two and one-half pounds per bird on cooler days.

Due to the extremely hot temperatures during the first six weeks after their arrival, the birds spent most of their time in a drooped-wing position, the birds' thermoregulatory mechanism. However, as time passed, the birds exercised with increasing frequency in preparation for their first flights. During periods of gusty winds, the eaglets jumped from 12 to 18 inches into the air and flapped their maturing wings in an attempt to develop their flight muscles. Short periods of "hovering" above the nest occurred.

The eaglets were released from their tower top enclosure on August 10. The birds' first flights proved much stronger than was expected — both covering about 150-200 yards before experiencing rough landings. The birds were quick to try flight again, and by the end of the second day extended flights of over three minutes were observed.

Prior to their release, food was placed on the platform and along surrounding shorelines for the birds as a guaranteed food source until they could refine their hunting-fishing skills. Both birds were observed feeding together along the shoreline by the third day.

Post release activities and movements are being monitored by using two small radio tracking devices that were attached to the birds. It is hoped that the eagles will remain in the area for a few months after their release, but some wandering by immature eagles can be expected.

The ultimate success of the project will not be known for another four to five years, when the birds reach sexual maturity and hopefully use their "homing instinct" to return to the LBL fledging site to raise their young.

This project represents one of several operations that state wildlife agencies and TVA are involved with in an effort to expand nongame species management — RICHARD L. LOWE, Land Between the Lakes, Tennessee Valley Authority, Golden Pond, Ky. 42231.

ANALYSIS OF A KENTUCKY BLACKBIRD-STARLING ROOST POPULATION FROM BIRDS KILLED BY PA-14 TREATMENT

BLAINE R. FERRELL, HERBERT E. SHADOWEN, WAYNE MASON,
THOMAS PADGETT AND ALLEN R. STICKLEY, JR.

Accurate analyses of roosting populations of blackbirds and Starlings (*Sturnus vulgaris*) are important for understanding roost ecology and assessing the effectiveness of control measures. One such attempt involved the successful application of a trapping technique to analyse the sex and age composition of a Starling population in a unique roosting situation (Davis, 1959). Where trapping techniques are not applicable, samples must be obtained through mortality. Robertson et al., (1978) strip-censused normal roost mortality at Fort Campbell, Kentucky and reported that species are not distributed randomly within the roost. Although not mentioned in Robertson's et al., (1978) report, findings from other studies of natural roost mortality (Odum and Pitelka, 1939; Stewart, 1978) indicate that mortality rates among roosting species differ, thereby biasing roost analyses based on such samples. For example, only 0.8% of a roosting population near Russellville, Kentucky were estimated to be Starlings whereas 84.4% of weather-related mortality was suffered by Starlings (Stewart, 1978). In addition, the same biases inherent in samples derived through natural mortality may bias analyses carried out using birds killed by PA-14 treatment (Lustick, 1975). However, analyses of roosting populations based on samples obtained from mortality produced by roost treatment with PA-14 have been infrequent (Monroe and Cronholm, 1977) primarily because of the lack of successful control attempts. An opportunity to obtain additional data of the type described above was afforded on 4 January, 1980 when PA-14 and water were applied to a roost in Bowling Green, Kentucky by the City of Bowling Green and the State of Kentucky. Hence, the following study was carried out.

MATERIALS AND METHODS

—Roost

The Bowling Green Center roost was adjacent to Kroger's food store on Route 41-W approximately 1 mile southwest of the Western Kentucky University campus in Bowling Green, Kentucky. The habitat of the 7.2 acre roost was a mixture of eastern red cedar (*Juniperus virginiana*), a variety of hardwoods, and field dominated by broom sedge (*Andropogon virginicus*) (Figure 1). The roosting population of blackbirds and Starlings was estimated by visual observations of birds leaving or entering the roost to range between 1.7 and 2.5 million birds during December and the few days prior to roost treatment with PA-14 and water. According to these visual observations, Common Grackles (*Quiscalus quiscula*) represented 60-70% of the roosting population followed in abundance by Starlings (20-25%), Brown-headed Cowbirds (*Molothrus ater*) (5-10%), and Red-winged Blackbirds (*Agelaius phoeniceus*) (5-10%) (Table 1).

—Roost Kill

Birds sampled in this study were assumed killed as a result of the application of PA-14 (surfactant) and water on the evening of January 4, 1980. A 25% solution of PA-14 was applied at a rate of 80 gallons per acre by helicopter, and irrigation was provided by the Bowling Green fire department. The Department sprayed birds with water from fire hoses located around the edge of the roost. Approximately 60-70% of the roost received the water application and although the birds seemed to flush in front of the water, at least a sizeable number got wet. The temperature which ranged between 29°F and 31°F was low enough for this treatment to effectively cause blackbird and Starling mortality (Anon., 1975), and the number of birds estimated killed by this treatment far exceed estimates of natural mortality in similar roosts studied (Odum and Pitelka, 1939; Stewart, 1978). The PA-14-water application took 2.5 hours and many birds were reportedly flushed from the roost during this period.

—Sampling Technique

This study was conducted on January 9, 1980. Prior to the actual roost survey, 50 sample areas were chosen at random according to the following procedure and plotted on a map of the roost site. The center of the initial sample area was determined by randomly chosen coordinates. The distance and compass heading from the center of the initial sample area to the center of the second sample area were similarly generated at random, as was the tilt (degrees) of each sample area relative to North. This process was repeated until 50 sample areas were generated (Figure 1). Each corner of each of the 50 square plots was 10 feet from the center. Therefore, each sample plot covered an area of approximately 200 square feet. Each habitat type appeared to be well represented by sample plots (Figure 1 and Table 3).

All birds within each sample plot were sorted according to species and sex, and counted. In sample plots where large numbers of birds were encountered, the sexes were identified in a representative subsample. Common Grackles were sexed according to wing cord length measurements (Meanley, 1967) and Starlings, when possible, by the extent of iridescence along the secondaries and the color at the base of the bill (Kessel, 1951; Meanley, 1967). The eye ring method of sexing Starlings (Kessel, 1951), though more reliable, was not used because of the condition of the specimens.

RESULTS

Results of the technique employed in this study are presented in Tables 1 and 2. Common Grackles suffered the greatest mortality (55.5% of the sample) followed in abundance by Starlings (26.8% of the sample), Brown-headed Cowbirds (14.0% of the sample), and Red-winged Blackbirds (3.6% of the sample) (Table 1). Only two other species were encountered and then only incidentally (Table 1). The sex ratio of both Common Grackles and Starlings was approximately 1:1 whereas males greatly outnumbered females in brown-headed Cowbirds (3:1) and Red-winged Blackbirds (32:1) (Table 2).

This study was also carried out to estimate the number of birds

killed by the application of PA-14. Assuming that the number of dead birds counted in the areas sampled are representative of the birds killed within the entire roost, the total number of birds killed was calculated using the following formula:

$$\begin{aligned}
 \text{Total Number of Birds Killed} &= \text{Number of Birds Killed} \times \text{Total Roost Area} \\
 &= 5144 \text{ Birds Killed} \times 315,150 \text{ sq. ft.} \\
 &= 162,113 \text{ Birds Estimated Killed}
 \end{aligned}$$

DISCUSSION

The proportions of mortality suffered by the four roost species in our sample correspond closely with proportions of each species estimated by visual observations prior to the application of PA-14 (Table 1). For example, 55.5% of the birds sampled were Common Grackles which compares well with pre-control visual estimates in which Common Grackles represented 60-70% of the roost population. Because of the close agreement among pre- and post-control estimates it seems unlikely that the effectiveness of PA-14 among the various species was differential as has been previously reported (Lustick, 1975; Monroe and Cronholm, 1977). The colder temperatures during the application of PA-14 reported in this study may account for these differences in results (Monroe and Cronholm, 1977). Normally Starlings are less susceptible to cooling as a result of PA-14 treatment under marginally mild temperatures (32-40 F) (Lustick, 1975). Temperatures during the application of PA-14 reported herein are slightly lower. PA-14 did not appear to have a significant impact on non-roost species.

The sex ratios determined for Starlings, Common Grackles, and Red-winged Blackbirds in this roost are in accordance with previous reports (Davis, 1959; Monroe and Cronholm, 1977). The fact that male Starlings consistently outnumber females by a slim margin has been attributed to a differential mortality rate between the sexes (Davis, 1959). Interestingly, Common Grackles and Starlings, species without distinct sexual dimorphism in plumage, are represented approximately equally by males and females. On the other hand, males clearly predominate in the roosting populations of Brown-headed Cowbirds (3:1) and Red-winged Blackbirds (32:1) (Table 2), species with a distinct sexual dimorphism. A possible explanation for this phenomenon would be conjectural at this time.

The effectiveness of PA-14 treatment can be evaluated based on samples derived through the use of this technique. By this method 162,113 birds were estimated killed by the application of PA-14. This figure is lower than estimates made by the Bowling Green Department of Health and the U.S. Fish and Wildlife Service personnel of 250,000-300,000 birds killed. The fact that most birds died in hardwoods at one end of the roost could account for the difference observed in these two estimates. A casual "random" visual survey of birds killed by PA-14 would tend to be biased. Entering the roost where bird mortality was highest might tend to bias estimates upwards, whereas estimates could be lowered by

entering the roost site where bird mortality was lowest. In that samples obtained using the technique reported herein were representative of all habitat types, such biasing would be reduced. In fact, the percent of sample plots within a habitat type agree closely with the percent of each habitat type within the total roost area (Table 3).

Results of the present study can not be used to evaluate where birds had roosted prior to disturbance. It was evident that roosting birds had been flushed from the cedars to the hardwoods in that few birds were found associated with heavy fecal build-up under the cedars whereas most birds were found associated with little fecal matter in the hardwoods. This observation is in accordance with the official report of the Department of Health, which states that birds were flushed by the helicopter.

In summary, relatively accurate analyses of roost species and sex composition can be made from mortality resulting from the use of PA-14 using the random sampling technique employed in this study. It is also possible that other population parameters (i.e., feeding habits, age, etc.) of roosting species could be determined from such samples. In addition, the impact PA-14 treatment has on roosting blackbird and Starling populations can be estimated using such a random sampling technique.

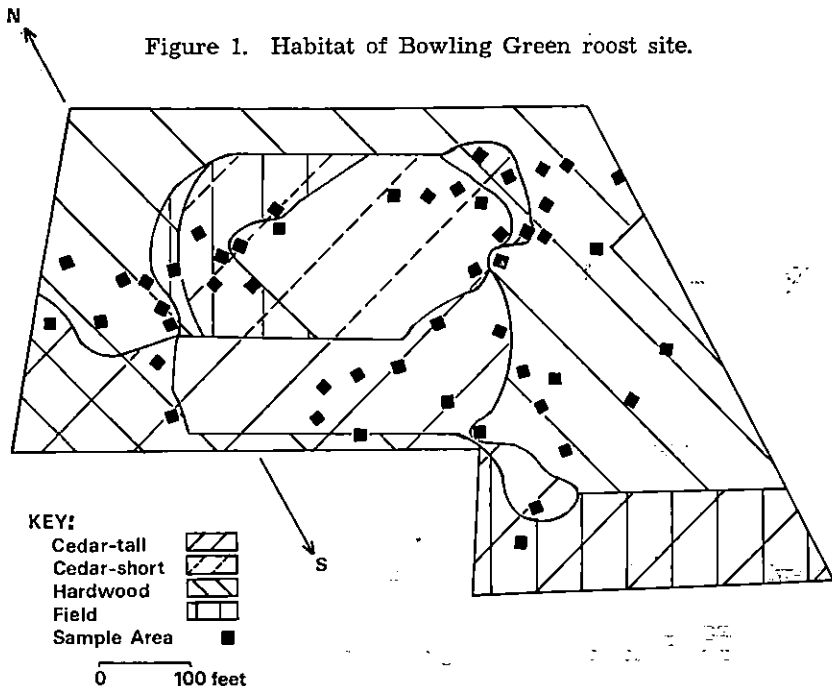


Table 1. Pre- and postPA-14 treatment estimates of species composition of blackbirds and Starlings roosting in the Bowling Green Center roost.

<i>Species</i>	<i>No. of Dead Birds Sampled</i>	<i>% of the Total Sample</i>	<i>Visual¹ Pretreatment Estimate (%)</i>
Common Grackle (<i>Quiscalus quiscula</i>)	2854	55.5	60-70
Starling (<i>Sturnus vulgaris</i>)	1378	26.8	20-25
Brown-headed Cowbird (<i>Molothrus ater</i>)	721	14.0	5-10
Red-winged Blackbird (<i>Agelaius phoeniceus</i>)	184	3.6	5-10
Rusty Blackbird (<i>Euphagus carolinus</i>)	6	.1	-
Cardinal (<i>Richmondia cardinalis</i>)	1	.0	-
TOTAL	5144		

¹Estimates made based on observations of birds entering and leaving the roost by Warren County Health Department, U.S. Fish and Wildlife Service personnel, and Wayne Mason.

Table 2. Sex composition of roosting blackbird and Starling populations in the Bowling Green Center roost determined from samples of birds killed by PA-14 treatment.

<i>Species</i>	<i>No. of Birds Sexed</i>	<i>% Male</i>	<i>% Female</i>
Common Grackle ¹	355	46	54
Starling ²	913	58	42
Brown-headed Cowbird	721	75	25
Red-winged Blackbird	184	97	3

¹Sexed using wing-cord length measurements (Meanley, 1967)

²Sexed using iridescence on the wing and color of the base of the bill (Kessel, 1951)

Table 3. Breakdown of the Bowling Green Center roost site into habitat types and the relative number of sample plots located in each type.

<i>Habitat Type</i>	<i>% of Total Area</i>	<i>% of Sample Plots Per Habitat Type</i>
Cedar (10')	10.2	16.0
Cedar (10')—Field	5.5	10.0
Cedar (10')—Field	13.6	2.0
Cedar (10')	15.5	16.0
Cedar (10')—Hardwood	10.1	14.0
Hardwood	43.2	40.0
Hardwood—Field	1.9	2.0

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THE NESTING SEASON, SUMMER 1980

ANNE L. STAMM

The weather during June and July was unusually hot. In Louisville it was the fourth hottest July this century and the warmest since 1936. The temperature reached 90 degrees or above on eight days in June, 22 in July, and it hit 100° to 101° on three days. Thunder storms and tornadoes swooped across Kentucky on June 7 and the early part of July. These storms brought golf ball-size hail in southeast Jefferson and parts of Oldham Counties. Trees were blown down and nesting birds suffered great losses. Rainfall was above normal during July, the rock ledge at the Falls of the Ohio was covered with water, and this had an adverse effect on ground nesting species such as Killdeer and Spotted Sandpipers.

On the whole it was a rather dull and unimpressive summer. However, the breeding bird surveys revealed that some species of birds which suffered severe losses during the winters of 1978-79 were beginning to get back to normal, but some still showed great decreases. Considerable field work was done by Lee K. Nelson on the nesting activities of the Mourning Dove in Henderson and McCracken Counties.

A new species was added to the list of breeding birds of the state when a Bell's Vireo was seen carrying nesting material on May 7 and 8, and later in June its nest was found in McCracken County by Charles Nicholson; other males observed on territory in the same county on June 20 by Alan Barron and Brainard Palmer-Ball, Jr. Another species of interest was the Least Flycatcher in Wolfe County in late June and was reported last year near the same location by Dennis Coskren. The area should be checked for possible evidence of breeding. A new station was reported for the Cliff Swallow which attests to its continued eastward breeding in the state.

Grebes through Ducks — A single Eared Grebe, a rare visitant, was seen on June 3 and 4 at Lake Cumberland by Richard Hines and Danny Watson. The Great Blue Heron was common by July 21 along the Ohio River in Boone County, possibly post-breeding vagrants (LMc); five were observed at Pulaski County Park on July 23 (JEL). A few Little Blue Heron were reported: singles on June 14 in Fulton and Hickman Counties (JEr); 23 on June 19 and 20 in Hickman County (AB, BPB); and one at the Falls of the Ohio, Jefferson County, July 22 (AB). Only one report of the Great Egret was received: seven birds in Hickman County, July 19, 20 (AB, BPB). Sixty-seven adult and four immature Black-crowned Night Heron were recorded at the Falls of the Ohio on June 15, and 39 adults and eight immatures there on July 27 (LR). The high water on the rock ledge limited feeding for this species and may have been a factor in the decrease in number. Two nests of the Yellow-crowned Night Heron were under construction in April at the University of Kentucky Farm, Lexington (MF); two nests there, possibly the same ones, with four fully-feathered young in each, July 6 (DC, RM); a third pair was noted there but no nest found (MF). Mallards had a fairly good year: 40 to 50 mostly immatures on a small lake at Simpsonville, July 17 (FS, ALS). Wood Ducks were

reported from several locations: a brood of eight left the nest on May 16 in northeast Jefferson County (F. Williams, *vide* ALS); brood of eight in western Kentucky (JEr); female with five young in Kenton County on June 30 (EG); and fair numbers at Mayfair basins, Jefferson County (JK).

Hawks through Shorebirds — Turkey Vultures were seen throughout June and July in Boone County (LMc), but seemed scarce in nearby Kenton County (EG); some increase noted on the Hodgenville Bird Survey (hereafter BBS), although other sightings did not reflect this increase (LaS). A Black Vulture at Burlington, Boone County on June 4 was unexpected (LMc). Three sightings of the Mississippi Kite were reported: one soaring over Burkley, three miles east of Columbus-Belmont State Park, Hickman County, June 14 (JEr); 14 in Ballard and Hickman Counties on June 19, 20 (AB, BPB); and eight along the Mississippi River in Hickman County in late June (JC). The Sharp-shinned Hawk at Bee Rock Campground, Pulaski County, June 29, was of interest (JEl). Three nests of the Red-shouldered Hawk reported: a nesting pair at Columbus Park, Hickman County (JEr); a pair with fledged young, near Paducah, McCracken County, June 26 (CN); and two young in a nest at Fern Creek, Jefferson County (JHe). Broad-winged Hawks were reported during the breeding season in Boone and Kenton Counties (YMc, EG). The Bobwhite suffered great losses in the recent severe winters, but seemed to be making a come-back in Boone County (LMc); the BBS routes showed increases in Bowling Green (HS), and western Kentucky areas (JEr), but were not near previous numbers on the Radeliff, Hodgenville (LaS) and Pleasureville routes (ALS). A Turkey was seen in Ballard County on June 19 (AB) and one in Fulton County in late June (JC). Shorebirds arrived on schedule, but few records were received. Due to high water on the rock ledge the transient shorebirds spread to outlying areas. A Ruddy Turnstone, one of the more unusual species, was seen at the General Electric sludge pond in Louisville on the early date of July 19 and a very early Willet there the following day (DP). Lesser and Greater Yellowlegs were also frequenting the sludge pond on July 10 and 11 (DP) and the former at the Falls of the Ohio on July 22, when the ledge was accessible (AB). A few Least Sandpipers were seen at the Falls on July 22 (AB) and in Pulaski County, July 23 (JEl). On the previously mentioned sludge pond there were three Short-billed Dowitchers in breeding plumage on July 19 and five there on July 11 (DP). The transient lakes at Bowling Green were dry during the period (HS).

Terns through Woodpeckers — Five Least Terns were observed feeding on a sandbar along the Mississippi River in Hickman County, June 14 and one in Fulton County on the same date (JEr); also three in Hickman County on June 19 and 20 (AB). About 70 nests of the Mourning Dove were studied in Henderson County and 34 in McCracken County (LN). Screech Owls nested successfully in Christian County, 11 miles northeast of Hopkinsville (PH), and in Burlington, young were seen for the first time in five years, formerly it was a common breeding bird there (LMc); numbers also down at Springfield (JB). Three nests of the Great Horned Owl were reported: two downy young in nest at Fern Creek, Jefferson County (DSu); two young out of nest huddled together in Cherokee Park

(ALS, BS, FS); also two young in a nest in Bullitt County on April 5 to 25 (PS). A Barred Owl was heard at Wolpen Creek, Boone County, June 4 (EG); no others reported. Two to three Chuck-will's-widows were heard each night from June 1 through July 7 off Hwy. 769 in Maplewood Estates, Pulaski County (JEl); also heard at Camp McKee Boy Scout Camp, Montgomery County, July 1 (DC). Chimney Swifts were up "sharply" on the Radcliff BBS, while the birds were near normal on the Hodgenville route (LaS); they were absent from one chimney in northeast Jefferson County where they had nested in past years (ALS). A slight decrease was noted in the Common (yellow-shafted) Flicker in the Springfield area (JB); the same was true for the Pileated Woodpecker. The latter species was doing well in other sections of the state. Red-headed Woodpeckers were "holding their own" at Burlington (LMc), and there was a noticeable increase at Springfield, Washington County (JB) and observed for the first time on the Anderson and Washington County Breeding Bird Surveys (JC); breeding successfully in Louisville and in northeast Jefferson County (ALS).

Flycatchers through Swallows — Few observers investigate the mosquito infested marshy areas where the Willow Flycatcher nests; however, a pair was at its usual place along Middle Fork Beargrass Creek, Louisville and two birds were recorded at two stops on the Radcliff, Bullitt County BBS in June (LaS). The Least Flycatcher heard east of Campton, Wolfe County on June 26 was of special interest and may indicate possible breeding (DC). A pair of Tree Swallows nested in a tree snag at Long Run State Park, Jefferson County, but no others were seen there; 10 were seen in Ballard County on June 18 and 19 (AB, BPB). A very small colony of Bank Swallows was nesting at Chalk Bluff, three miles south of Columbus Park, Hickman County, June 14 (JEr). Rough-winged Swallows were found nesting at Wolpen Creek, Burlington, June 4 (LMc). Barn Swallows began migrating earlier than normal and 500+ were observed near a small lake of Oakhill Road, Pulaski County, July 23 (JEl). The small colony of Cliff Swallows (8 birds—adults and immatures) beneath the overpass of Mountain Parkway, east of Campton, June 26 was noteworthy (DC). The species has spread all across the state in the past 10 years. Purple Martins were observed by the "thousands" in the Owensboro area, Daviess County, the last week of July (RI).

Crows through Wrens — The Fish Crow is seldom mentioned in our seasonal report, although it is found regularly along the Mississippi River in western Kentucky. However, this period two reports were received: three birds in Ballard County, June 18 (AB); and one in McCracken County on June 26 (CN). House Wrens increased substantially at Springfield (JB), but this was not reflected elsewhere. Carolina Wrens were still hard to find, but in a few areas there seemed to be a slight increase. An interesting record was that of two Short-billed Marsh Wrens in a marshy area in Monticello, Wayne County, July 27 (JEl).

Mimids through Starlings — Mockingbirds have not fully recovered from the losses suffered due to the severe winters of 1978-79 in the Radcliff and Hodgenville areas (LaS), but there was a slight increase noted in the following locations: Hamlin (JEr), Burlington (LMc), and

Springfield (JB). Gray Catbirds were found in good numbers in the Owensboro area (RI), but were below normal in the Louisville area (ALS). Unusually large numbers of American Robins were found during June in Bowling Green (HS) and Louisville (ALS). A Swainson's Thrush was a rather late straggler on June 5 at Madisonville (JH). The Eastern Bluebird continued to be scarce, but in most areas observers suggested a slight increase. Few Loggerhead Shrikes were encountered but singles were mentioned at Union, June 14 (LMc) and in Pleasureville, June 7 (FS, ALS). Starlings in the Bowling Green area were "about half as numerous as they were last summer" (HS) and they continued to decline on both the Radcliff and Hodgenville BBS's by about almost 50% (LaS).

Vireos through Warblers — Two pair of Bell's Vireo were on territory near Paducah, McCracken County on May 7 and 8 and one bird was seen carrying nesting material; a nest was found there on June 26, with five pair on territory (CN). Also, another record of four singing males in McCracken County on June 20 (AB, BPB). A Prothonotary Warbler was heard singing in eastern Pulaski County on June 11 and another feeding a fledgling in another section of the county on June 12 indicated new breeding areas for the species (JEl); a successful nest was also reported at Cadiz, Trigg County (LSt). The rare Swainson's Warbler was reported in Ballard County, June 19 (AB) and five were observed in Pine Mountain State Park on June 28 (LSa, BaS). A Worm-eating Warbler on June 20 in Ballard County was of interest as it is seldom found in that area during the breeding season (AB). A Tennessee Warbler on June 9 in a residential section of Lexington was a fairly late straggler (DC). Three Black-throated Blue Warblers were recorded on Black Mountain (LSa). The Cerulean Warbler seemed to be absent from its usual breeding areas in Boone County (LMc) and numbers were down in the Louisville area (ALS). Chestnut-sided Warblers were very common on Black Mountain on June 29 as were Ovenbirds (LSa, BaS). Three instances of Brown-headed Cowbird parasitism were reported: two pair of Kentucky Warblers and a Louisiana Waterthrush were seen feeding young cowbirds in Boone County on July 26 (LMc). Yellow-breasted Chats were considered down 75% from previous years in McLean County (RI). Hooded Warblers were numerous on Black Mountain on June 29 (LSa).

House Sparrows through Blackbirds — Surprisingly enough, the House Sparrow showed a marked increase on the BBS's of Radcliff, Hodgenville (LaS) and Pleasureville (ALS, FS). A small colony of Bobolinks was nesting in Goshen Meadows, Oldham County on June 6 (ALS) and observed by many on the following day (BBC); one heard on the Pleasureville BBS, June 8 (ALS, FS). The Eastern Meadowlark was "scarce" at Owensboro (RI), but had fully recovered from the winter losses in 1978-79 on the Radcliff and Hodgenville BBS (LaS) and an increase noted on the Pleasureville BBS (ALS). Apparently Orchard Orioles had a good year in Pulaski County: more than 15 (adults and immatures) were seen on July 9 (JEl); a male and two young at Fort Wright, July 9 (EG); but numbers down in the Pleasureville and Louisville areas (ALS). The Northern (Baltimore) Oriole was found on eight of the 50 stops of the BBS along the Mississippi River, June 14 (JEr); increases were noted in Louisville, Pleasureville (ALS) and at Springfield (JB). Common Grackles showed a drastic decrease in numbers on the Shelby-Henry County BBS, June 8 (ALS, FS).

Fringillidae — The Cardinal was down significantly on both the Radcliff and Hodgenville BBS routes (LaS). The Blue Grosbeak continued its spread eastward: heard at two locations in Madisonville, July 14, 20 (JH); one at Louisville, June 8 (HC); one singing north of Lexington, July 6 (DC); a noticeable increase at Springfield (JB); and at two locations in Pulaski County, June 1 through July 1 (JEl). Dickcissel were considered "thick as flies" in Hickman County during late June (JC); a few were sighted in the Madisonville area (JH); three to four pairs were breeding in Goshen Meadows, Oldham County, June 6 and 7, where the species had not been found for the past three years (ALS, BBC). In some areas of central Kentucky the Dickcissel's habitat has changed. A House Finch was seen for several weeks during June in the yard of Dr. Fred Pipkin in Louisville (LaS). The rare Bachman's Sparrow was heard singing along the Mississippi River on June 14 (JEr). Rufous-sided Towhee suffered some losses during the winters of 1978-79 and have recovered in some areas, particularly on the Radcliff and Hodgenville routes (LaS). Although the Grasshopper Sparrow showed some decrease in numbers on the Radcliffe BBS, it was thought this was due to habitat changes; good numbers were found on the Hodgenville BBS (LaS). Field Sparrows continued to be in low numbers in central and southern Kentucky, while no decreases were noted in northern Kentucky.

Reports for the Fall Migration Season (August through November) should reach the writer by December 7.

Contributors — John Barber (JB), Alan Barron (AB), Herbert Clay (HC), Dennis Coskren (DC), Joseph E. Croft (JC), Jackie Elmore (JEl), Joe Tom Erwin (JEr), Michael Flynn (MF), Ed Groneman (EG), James W. Hancock (JH), Janice Heckman (JHe), Phillip Hyatt (PH), Ramon Iles (RI), John Krull (JK), Lee McNeely (LMc), Robert Morris (RM), Lee K. Nelson (LN), Charles P. Nicholson (CN), Donald Parker (DP), Lene Rauth (LR), Larry Sanders (LSa), Herbert E. Shadowen (HS), Lawrence D. Smith (LaS), Anne L. Stamm (ALS), Frederick W. Stamm (FS), Patricia Steilberg (PS), L. Stokes (LSt), Donna Sumpter (DSu).

Other abbreviations and observers: Breeding Bird Survey (BBS), Beckham Bird Club (BBC), Robert Morris (RM), Lee K. Nelson (LN), Brainard Palmer-Ball, Jr. (BPB), Barbara Sanders (BaS), Bernice Shannon (BS).

— 9101 Spokane Way, Louisville, Ky. 40222.

THE KENTUCKY ORNITHOLOGICAL SOCIETY
FALL MEETING

September 26-28, 1980

The fifty-seventh Annual Fall Meeting of the Kentucky Ornithological Society was held at Natural Bridge State Park on September 26, 27, and 28.

On Friday evening the members met in the lodge annex with President Ramon Iles presiding. The program for the evening consisted of discussions of the Murphy Pond Sanctuary by Robert Oddo of Murray and birds in strip-mine areas of eastern Kentucky by Pierre Allaire of Jackson. The program was followed by a social hour arranged by Dr. Allaire. Announcements were made concerning the Saturday field trips, which were to be led by Pierre Allaire, Wendell Kingsolver, and Burt Powell.

Windy overcast conditions greeted early birders on Saturday, but by midmorning weather conditions were ideal and many birds were seen as well as the beautiful scenery of Natural Bridge State Park and the Red River gorge area. In the afternoon a program on eagle identification arranged by Mrs. Anne Stamm and Mr. James Durell was well attended. In addition a film with excellent views of predatory species was shown by W. H. Brown.

On Saturday evening the business meeting followed the dinner. John Krull, Corr. Sec.-Treasurer, gave the Treasurer's report (included in this issue) and stressed the need for additional funds to offset the increased expense of printing *The Kentucky Warbler*. A recommendation was made that the dues be changed as follows: Regular membership, from \$3.00 to \$5.00; Contributing membership, from \$5.00 to \$6.00; Student membership, from \$2.00 to \$3.00; and Life membership, from \$50.00 to \$75.00. The recommendation was approved by the body without dissenting vote. President Iles announced that he was appointing Dr. Burt Monroe to serve as K.O.S. representative to the Kentucky Nature Preserves Commission, which is in the process of preparing a list of endangered bird species. Mr. Iles read a resolution of appreciation to U. S. Congressman Gene Snyder for his support of protection for the Falls of the Ohio area. Dr. Allaire made a compilation of the bird species seen during the day; it included 90 species. An announcement was made concerning the dates and localities for future meetings. The spring meeting is scheduled for April 24-26, 1981 at Barren River State Park; the fall meeting for Ken Lake State Park, September 25-27, 1981; and the spring meeting for 1982 is tentatively planned for Rough River State Park the last weekend in April.

The Nominating Committee report was presented by Mrs. Stamm as follows:

President: Ramon Iles
Vice-president: Dr. Pierre Allaire
Corresponding Secretary-Treasurer: John Krull
Recording Secretary: Mrs. Wendell Kingsolver
New Councillors: James Williams and L. E. Wilson.

The candidates were duly elected.

The program for the evening was presented by John Tierney, Naturalist at Carter Caves State Park. Mr. Tierney gave an illustrated informative presentation concerning trends in Kentucky state parks. He traced the history and present status of the Kentucky state park system and concluded by encouraging K.O.S. members to make known their concerns and desires concerning the park system. A lengthy period of questions and discussion followed. The meeting adjourned at 9:30 p.m.

Respectfully submitted,
H. E. Shadowen
Acting Recording Secretary

BIRDS REPORTED ON FIELD TRIPS AT THE FALL MEETING AT NATURAL BRIDGE STATE PARK

September 26-28, 1980

Great Blue Heron, Green Heron, Wood Duck, Turkey Vulture, Black Vulture, Sharp-shinned Hawk, Cooper's Hawk, Red-tailed Hawk, Red-shouldered Hawk, Broad-winged Hawk, Osprey, Peregrine Falcon, Merlin, American Kestrel, Ruffed Grouse, Turkey, Rock Dove, Mourning Dove, Yellow-billed Cuckoo, Screech Owl, Great Horned Owl, Barred Owl, Chimney Swift, Ruby-throated Hummingbird, Belted Kingfisher, Common Flicker, Pileated Woodpecker, Red-bellied Woodpecker, Red-headed Woodpecker, Yellow-bellied Sapsucker, Hairy Woodpecker, Downy Woodpecker, Eastern Phoebe, Acadian Flycatcher, Eastern Wood Pewee, Olive-sided Flycatcher, Blue Jay, Common Crow, Carolina Chickadee, Tufted Titmouse, White-breasted Nuthatch, Winter Wren, Carolina Wren, Gray Catbird, Brown Thrasher, American Robin, Wood Thrush, Swainson's Thrush, Gray-cheeked Thrush, Veery, Eastern Bluebird, Blue-gray Gnatcatcher, Ruby-crowned Kinglet, Cedar Waxwing, Loggerhead Shrike, Starling, White-eyed Vireo, Yellow-throated Vireo, Solitary Vireo, Red-eyed Vireo, Black and white Warbler, Tennessee Warbler, Nashville Warbler, Magnolia Warbler, Black-throated Blue Warbler, Cerulean Warbler, Blackburnian Warbler, Yellow-throated Warbler, Bay-breasted Warbler, Pine Warbler, Ovenbird, Kentucky Warbler, Common Yellowthroat, Hooded Warbler, American Redstart, House Sparrow, Scarlet Tanager, Summer Tanager, Cardinal, Rose-breasted Grosbeak, Indigo Bunting, American Goldfinch, Rufous-sided Towhee, Chipping Sparrow, Field Sparrow, White-throated Sparrow, Song Sparrow. — Total species: 90.

ATTENDANCE AT THE K.O.S. 1980 FALL MEETING AT NATURAL BRIDGE STATE PARK

BOWLING GREEN: Blaine Ferrell, Mr. and Mrs. Mike Jones, Herb and Jacky Shadowen

BURLINGTON: Mr. and Mrs. Lee McNeely

CADIZ: Mr. and Mrs. Wesly Kemper

- CARLISLE: Dr. and Mrs. Wendell Kingsolver
 COVINGTON: Peggy Kelly
 JACKSON: Dr. and Mrs. Pierre Allaire, Mr. and Mrs. G. Turner
 LEXINGTON: Robert Morris, Mr. and Mrs. Bruce Poundstone, Dr. and Mrs. Andrew Uterhart, Glen Wells, Mr. and Mrs. James Williams, Ward Wilson
 LOUISVILLE: Mrs. Elizabeth Boyd, Altha Cain, Richard Cassell, Katherine Colburn, Mrs. Herbert Clay, Mrs. John L. Garst, Dr. and Mrs. R. L. Hectorne, John Krull, Mrs. Kathryn L. Mudd, Martha Pike, Mabel Slack, Mr. and Mrs. Frederick Stamm, Mr. and Mrs. Donald Summerfield, Danny Watson
 MADISONVILLE: Mr. and Mrs. N. M. Travis
 MOREHEAD: Mr. and Mrs. Fred Busroe
 MURRAY: Bob Goetz, Robert Oddo
 RICHMOND: Dr. and Mrs. W. A. Householder, Holly Oldham
 SHELBYVILLE: Mr. W. H. Brown
 SOMERSET: Richard Hines, Pam Hines
 WHITESBURG: Francis Carter
 DYERSBURG, TN.: Mr. and Mrs. Kenneth Leggett

**KENTUCKY ORNITHOLOGICAL SOCIETY
 REPORT OF TREASURER
 For The Fiscal Year Ending September 27, 1980**

GENERAL FUND

Bank Balance as of October 1, 1979 \$1,012.69

Receipts

Membership Dues	\$1,717.00	
Interest Income:		
(A) From Certificates (Endowment Fund)	173.37	
(B) From Certificates (Gordon Wilson Fund)	80.93	
Sales of Checklists, Bar Graphs, etc.	45.93	
Vernon Kleen Gift to Gordon Wilson	50.00	
Fall 1979 Meeting	450.50	
Spring 1980 Meeting	53.00	
Pre-registration Fall 1980	316.30	2,887.03
	<hr/>	<hr/>
		3,899.72
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Disbursements

Printing: Ky. Warbler, 4 issues	2,207.16	
Supplies: Envelopes, Labels, etc.	45.48	
Postage: Bulk Permit, Misc.	188.64	
Expenses — Fall 1979 Meeting	468.30	
Safety Deposit Box Rental	11.00	
Corporation Filing Fee	2.00	
Transfer Life Memberships (5) @ \$50.00	251.00	
Nature Conservancy Dues	10.00	
Transfer Vernon Kleen Gift to Gordon Wilson Fund	50.00	
Transfer of Interest to Gordon Wilson	80.93	
Miscellaneous	18.73	3,333.24
		<hr/>
Balance, First National Bank as of 9/27/80		566.48

ENDOWMENT FUND

Balance in Savings Account, Jefferson Federal Savings & Loan as of 10/1/79	\$1,868.30	
(2) \$1,000.00 Certificates of Deposit; (1) \$1,500.00 Certificate of Deposit (at Colonial Federal)	3,500.00	\$5,368.30
		<hr/>

Receipts

Interest Income on Certificates	314.44	
Interest Income on Savings Account	33.72	
Interest Income on Life Memberships (5) (Mr. Eugene Cypert, Mrs. Eugene Cypert, James Durrell, Jerome Jackson, Vernon Kleen)	251.00	599.16
		<hr/>
		5,967.46

Disbursements

Transfer of Interest on Certificates to General Fund ..	173.37	
Withdrawal of \$1,500.00 for Purchase of CD 11/29/79	1,500.00	1,673.37
		<hr/>
		4,294.09
		<hr/>
Certificates of Deposit — (2) @ \$1,000.00, (1) @ 1,500.00		3,500.00
Accumulation of Interest on Certificates		141.07
Balance in Savings Account at Jefferson Federal as of 9/27/80		653.02
		<hr/>
		4,294.09
		<hr/>

GORDON WILSON FUND

Bank Balance in Savings Account, Greater Louisville Savings and Loan as of 10/1/79	\$1,003.99	
Withdrawal of \$1,000.00 for Purchase of Certificate 11/2/79	1,000.00	3.99
(2) 1,000.00 Certificates (One at Colonial Federal— One at Greater Louisville)	2,000.00	2,003.99

Receipts

Gift from Vernon Kleen	50.00	
Interest on Savings	22.15	
Interest on Certificates	154.26	226.41
		<u>2,230.40</u>
Balance on Savings Account, Greater Louisville as of 9/27/80		157.07
Accumulated Interest on Certificate		73.33
Certificates of Deposit—2 @ 1,000 ea.		2,000.00
		<u>2,230.40</u>

BALANCE SHEET**Assets:**

Cash, First National Bank, Lou., Ky.	\$ 566.48
Savings Account, Jefferson Federal Savings & Loan	653.02

Endowment Fund:

(2) Certificates of Deposit, Colonial Federal—Endowment	2,000.00
(1) Certificate of Deposit, Jefferson Federal	1,500.00
Accumulated Interest on Certificate	141.07

Gordon Wilson Fund:

(2) Certificates of Deposit, Colonial Federal	2,000.00
Accumulated Interest on Certificate	73.33
Savings Account, Greater Louisville, Gordon Wilson Fund for Ornithology	157.07
TOTAL ASSETS	<u>7,090.97</u>
NET WORTH 10/1/80	<u>7,090.97</u>

John Krull, Treasurer

FIELD NOTES

EARED GREBE SIGHTING ON LAKE CUMBERLAND

On June 3 and 4, 1980, we observed an Eared Grebe (*Podiceps nigricollis*) on Lake Cumberland near the boundary of Camp Earl Wallace. The bird seemed extremely docile, and we were able to observe it as close as five feet. We were able to see the crested black head and golden ear tufts. According to Peterson's Field Guide this bird is accidental east of the Great Plains.

— RICHARD E. HINES, Rt. 1, Somerset, Ky. 42501 and DANNY WATSON, 1418 Mill Race Road, Louisville, Ky. 40223.

Editor's Note: Although the Eared Grebe is a rare winter and spring visitant in Kentucky, we have a few records, the latest previous one on May 12, 1968.

A BUTEO SIGHTING FROM WESTERN KENTUCKY

On September 18, 1980, at 9:45 a.m. near Cadiz, Kentucky, I saw a swirl of approximately 17 Red-tailed Hawks (*Buteo jamaicensis*) over the woods and the road near my residence. They were low enough to be identified without field glasses. Soon they were joined by another group coming from the west and before long by another group coming from the south. Soon they were too high and too far to count, but I estimated the group at approximately 50.

As they got out of sight we noticed a number of large birds coming from the northeast and moving rapidly toward the southwest. The hawks kept coming as I hurried to the house for field glasses. They flew directly over the house in both small and large groups. They had heavy bodies, broad wings, and wide short tails with a broad white band in the tail. The underside was light with black wingtips; thus we identified them as Broad-winged Hawks (*Buteo platypterus*). Soon they moved off in a ribbon-like formation toward the southwest, so we were able to count approximately 100 birds with a few stragglers periodically. At 10:45, an hour after seeing the first hawk, there were none.

— Mrs. STANLEY STOKES, Rt. 8, Cadiz, Ky. 42211.

Editor's Note: Any member interested in conducting a midwinter bird count can receive the necessary forms by contacting the editor. The dates for this winter count are December 20 through January 4. The count results should be mailed to the editor no later than January 10.

INDEX TO VOLUMES 53-56, 1977-1980

BY H. E. SHADOWEN

The names of participants in the Mid-winter Bird Counts and the Seasonal Reports have not been included in this index nor have the names of the species recorded on these counts and reports been listed. Species included in longer articles do not appear unless accompanied by significant information. The capital letter R is used to indicate a book review.

AUTHORS

- Allaire, Pierre N. '77:13-16; '77:32; '80:65-66
 Brines, Wally '80:65-66
 Brown, Bob '80:66-67
 Brown, W. H. '78:16; '78:73; '80:23
 Coskren, Dennis '79:65-66
 Czurlis, Sister Casimir '77:27-28; '77:47-49; '78:31-33; '78:65-67; '79:32; '79:59-61
 Davis, Wayne H. '77:30
 Davis, Wayne H. and Charles K. Hand '78:73
 Davis, Wayne, Charles K. Smith, Jarvis Hudson, and Greg Shields '80:43-55
 Dodson, Ron '77:40
 Elmore, Jackie B. '78:54; '80:21-22; '80:22
 Ferrell, Blaine '80:72-77
 Greene, William, Jr. '78:14
 Hines, Richard E. and Danny Watson '80:88
 Householder, Jane '78:35-36
 Hudson, Jarvis '78:39-38; '79:67
 Irscher, Sharon and Robert '79:34-35
 Johnson, George '80:21
 Kingsolver, Virginia and Wendell '78:53
 Krull, Frank, Mary, and John '78:54
 Larson, Edwin '79:67
 Lowe, Richard '80:
 Mason, Wayne '77:40-41; '78:53; '79:39-42
 Mathes, Ruth and W. B. '78:55
 Mayfield, George '80:23
 McKee, Steven '79:52
 Miller, Michael '78:14-15
 Monroe, Burt L., Jr. '77:25-26; '78:19-50; '79:23-28; '79:51-52R
 Palmer-Ball, Brainard, Jr. '77:41; '80:24; '80:27-39
 Parker, Donald '78:15
 Peterson, Clell '80:65
 Ritchison, Gary '80:27-30
 Robertson, Judy '77:40
 Shadowen, H. E. '77:43R; '78:48-49; '78:57-59; '79:3-13; '79:19R; '80:3-13; '80:35; '80:83-84; '89:89-92
 Shannon, Bernice B. '78:71-72R
 Smith, Charles K. and Wayne H. Davis '79:19-20
 Smith, Lawrence D. '78:15
 Smith, Tom and Pierre Allaire '78:35
 Stamm, Anne L. '77:18; '77:23-25; '77:35-37; '77:54R; '78:27-31; '78:34-35; '78:42-47; '78:49-52; '78:60-64; '79:13-18; '79:29-31; '79:42-45; '79:46-50; '79:55-58; '80:13-18; '80:30-34; '80:39-40; '80:39-40; '80:55-58; '80:59-64; '80:78-82
 Steilberg, Patricia '80:67
 Stickley, Allen R., Jr. '78:39-41
 Stokes, Mrs. Stanley '80:88
 Summerfield, Donald '78:36; '80:22-23
 Westerman, Albert G. '77:17
 Whitt, A. L., Jr. '77:42
 Williams, Mrs. James M. '80:40
 Woolfenden, Mrs. L. '80:23

BIRDS

- Ani, Groove-billed '80:65-66
 Avocet, American '78:53
 Blackbird, Red-winged '79:23-28
 Blackbirds '77:55; '78:39-41; '80:
 72-77
 Bluebird, Eastern '78:21
 Bunting, Snow '80:38
 Chat, Yellow-breasted '78:21
 Crane, Sandhill '78:16; '78:54
 Crossbill, White-winged '78:35
 Crow, Common '77:30; '77:38-39
 Dove, Mourning '79:23-28; '80:23
 Eagle, Bald '77:35-37; '77:54; '78:
 49-51; '79:42-45; '80:55-58; '80:71
 Eagle, Golden '77:35-36; '78:49-51;
 '79:43-44; '80:56-57
 Egret, Cattle '80:22-23
 Finch, House '78:35; '79:68; '80:21
 Flycatcher, Olive-sided '79:67
 Gnatcatcher, Blue-gray '78:22
 Goshawk '78:16; '80:40
 Grebe, Eared '80:88
 Grebe, Western '78:15
 Grosbeak, Black-headed '78:55
 Grosbeak, Blue '78:14; '79:67; '80:39
 Grosbeak, Evening '78:36
 Gull, Great Black-backed '77:18
 Gull, Franklin's '80:18-19
 Hawk, Cooper's '80:21
 Hawk, Broad-winged '78:73; '80:23;
 '80:88
 Heron, Great Blue '77:40
 Ibis, White '79:34-35
 Kestrel, American '80:39
 Killdeer '79:23-28
 Kingbird, Western '80:38
 Kite, Mississippi '78:15
 Longspur, Lapland '80:38
 Meadowlark, Eastern '78:20
 Mockingbird '78:21
 Oriole, Northern '80:23
 Osprey '79:19
 Owl, Barred '80:66-67
 Owl, Great Horned '80:67
 Owl, Snowy '77:40
 Parulidae '79:39-42
 Phalarope, Wilson's '79:52
 Purple Martin '77:19
 Rail, Yellow '77:41; '80:37
 Raven '79:19
 Redstart, American '80:22
 Robin, American '77:15; '79:23-28
 Siskin, Pine '78:36; '80:38
 Sparrow, Chipping '78:21
 Sparrow, Field '78:20
 Sparrow, Grasshopper '78:21; '80:39
 Sparrow, Song '79:23-28
 Sparrow, Sharp-tailed '78:15
 Sparrow, Vesper '80:27-30
 Starling '77:30; '79:23-28
 Stilt, Black-necked '77:17
 Stork, Wood '77:31
 Swallow, Barn '79:23-28
 Swallow, Cliff '77:40-41
 Swift, Chimney '79:23-28
 Titmouse, Tufted '78:21
 Vireo, Red-eyed '78:22
 Vireo, Warbling '78:22
 Vireo, Yellow-throated '78:22
 Waxwing, Cedar '80:65
 Woodcock, American '78:34
 Woodpecker, Red-cockaded '77:19;
 '79:67
 Wren, Bewick's '78:22
 Wren, Carolina '77:42; '78:22
 Yellowthroat, Common '79:23-28

LOCALITIES

- Barren County '78:53
 Barren River Reservoir '77:40-41; '78:57-59; '80:21
 Bell County '80:18-20
 Bernheim Forest '77:10; '78:6; '79:10; '80:10
 Black Mountain '78:13
 Bowling Green '77:5; '78:5; '79:4; '80:4; '80:35-36
 Breathitt County '77:32; '78:35
 Bullitt County '80:67
 Burlington '77:13; '78:13; '79:12; '80:12
 Cadiz, '80:88
 Calloway County '78:14; '80:65-66
 Carlisle '78:12
 Centerfield '79:34
 Cumberland Gap National Historical Park '77:13; '78:13; '80:13; '80:43-45
 Danville '77:11; '78:7; '78:65-68; '79:11; '80:11
 Falls of the Ohio '77:18
 Fayette County '76:67
 Frankfort '77:11; '78:7; '79:11; '80:11
 Franklin County '77:17
 Glasgow '77:5; '78:5; '79:5; '79:39-42; '80:5
 Grayson County '80:66
 Harlan County '78:73; '79:19; '79:52
 Henderson '77:3; '78:3; '80:3
 Henderson County '77:40; '79:3
 Hopkinsville '80:4
 Jackson '77:12; '78:12; '79:12; '80:12
 Jefferson County '77:40; '78:15; '78:54; '80:22
 Jeffersontown '78:55
 Kleber '77:12; '78:12; '79:11; '80:11
 Lake Cumberland '80:88
 Land Between the Lakes '77:3; '77:31; '78:3; '79:3; '80:3; '80:71
 Laurel County '79:67
 Lee County '79:65
 Lexington '77:12; '77:30; '77:38; '78:73; '79:11; '80:40
 Louisville '77:10; '78:6; '78:15; '78:34; '79:10; '80:10; '80:37-40
 Maceo '78:4
 Madison County '78:35
 Madisonville '77:4; '78:4; '79:4; '80:4
 Mammoth Cave National Park '77:5; '77:27-29; '78:5; '78:31-34; '79:5; '79:32-33; '80:5
 Marion '77:3; '78:3; '79:3; '80:3
 Marshall County '80:65
 Natural Bridge State Park '80:83-85
 Nicholas County '78:53; '79:12
 Oldham County '78:54
 Otter Creek Park '77:5; '78:5; '79:5; '80:5
 Owensboro '79:59-62
 Pennyryle Forest State Park '77:4; '78:4; '79:4
 Pine Mountain Settlement School '77:13; '78:12; '79:12; '80:12
 Pikeville '80:23
 Pulaski County '80:21
 Rough River State Park '77:47-50
 Russell County '80:22
 Shelby County '78:16
 Shelbyville '77:11; '78:6; '79:10; '80:10; '80:23
 Somerset '82:12; '80:22
 Sorgho '77:4; '78:4; '79:4; '80:4
 Willard '78:13; '79:13
 Valley Station '78:36
 Yelvington '77:4; '80:4

GENERAL

- Aberrant Pigmentation '77:13-16
Analysis of Kentucky's Breeding
Birds '78:19-26; '79:23-28
Bald Eagle Count '77:35-37; '78:49-
52; '79:42-45; '80:55-58
Fall Meeting '77:47-53; '78:65-71;
'79:59-65; '80:83-85
Habitat Section '79:39-42
Midwinter Bird Count '77:3-13; '78:
3-14; '79:3-13; '80:3-13
Nest Record Card Program '77:23-
25
Nomenclature Changes '77:25-26
Regional Heritage Program '77:44
Roosts '77:55; '78:39-41; '80:72-77
Spring Counts '77:38; '78:48-49;
'79:32-33; '80:35-36
Spring Meeting '77:27-30; '78:31-34;
'79:32-33
Summer Avifauna of Barren River
Reservoir '78:57-59
Summer Birds of Cumberland Gap
National Historical Park '80:43-55
Vocalization '80:27-30